

R:\11013\1026-greenway stormwater park design\DWG\SheetCD31926-C\_001-COVER.dwg | Printed on 6/5/2013 7:51 AM | by Lisa Marsh

RESPONSIBLE LAND DISTURBER DESIGNATION

THE PERSON IDENTIFIED BELOW IS DESIGNATED AS THE RESPONSIBLE LAND DISTURBER WHO WILL BE IN CHARGE OF AND RESPONSIBLE FOR CARRYING OUT THE LAND DISTURBING ACTIVITY ASSOCIATED WITH THIS PROJECT. THE PERSON MEETS THE APPLICABLE REQUIREMENTS OF VIRGINIA CODE SECTION 10.1-563 AND 10.1-566 BY VIRTUE OF THE FOLLOWING:

\_\_\_\_\_ RESPONSIBLE LAND DISTURBER CERTIFICATE

☒ DCR CERTIFICATION FOR COMBINED ADMINISTRATOR, ADMINISTRATOR, PLAN REVIEWER, INSPECTOR, OR CONTRACTOR.

☐ VIRGINIA PROFESSIONAL ENGINEER, LAND SURVEYOR, LANDSCAPE ARCHITECT, OR ARCHITECT

RESPONSIBLE LAND DISTURBER CONTACT INFORMATION:

NAME (SIGNATURE): \_\_\_\_\_

NAME (PRINT): \_\_\_\_\_

CERTIFICATION/REGISTRATION NUMBER: \_\_\_\_\_ RLD # \_\_\_\_\_

COMPANY: \_\_\_\_\_

MAILING ADDRESS: \_\_\_\_\_

TELEPHONE: \_\_\_\_\_

THIS DESIGNATION MAY ONLY BE CHANGED BY A PLAN COVER SHEET REVISION THAT MUST BE SUBMITTED TO THE CITY FOR VERIFICATION AND APPROVAL. THE DEPARTMENT OF PUBLIC WORKS/ENGINEERING MUST BE CONTACTED AT LEAST 48 HOURS PRIOR TO MEETING. PLEASE CALL (757) 664-4600

ADJACENT PROPERTY OWNERS NOTE

THE CONTRACTOR SHALL PROVIDE WRITTEN NOTIFICATION TO ALL PROPERTY OWNERS AND RESIDENTS OF PROPERTY ADJACENT TO THE DEVELOPMENT OR OFFSITE IMPROVEMENTS, 30 DAYS PRIOR TO THE COMMENCEMENT OF WORK UNLESS OTHERWISE DIRECTED BY THE CITY. CONSTRUCTION WITHIN EASEMENTS OR ON PUBLIC RIGHT-OF-WAY NECESSITATES NOTICE WHETHER ADJACENT TO OR LOCATED ON THE ADJOINING PROPERTY. FAILURE TO PROVIDE THE MINIMUM NOTIFICATION TIME WILL RESULT IN A SUSPENSION OF WORK.

UTILITY AND GOVERNING AGENCIES CONTACT LIST

| WATER COMPANY   | POWER COMPANY   | SANITATION   |
|---|---|--|
| CITY OF NORFOLK UTILITIES<br>P.O. BOX 1080<br>NORFOLK, VIRGINIA 23501<br>CONTACT: DAVID SPEER, P.E.<br>TEL: (757) 664-6701<br>FAX: (757) 664-6739 | DOMINION VIRGINIA POWER<br>1601 HAMILTON AVE.<br>PORTSMOUTH, VA 23707<br>PHONE:(757) 393-3824 (WORK)<br>PHONE:(757) 434-3703 (CELL)<br>CONTACT: GAYLENE W. WATSON | CITY OF NORFOLK UTILITIES<br>P.O. BOX 1080<br>NORFOLK, VIRGINIA 23501<br>CONTACT: DAVID SPEER, P.E.<br>TEL: (757) 664-6701<br>FAX: (757) 664-6707                          |
| NATURAL GAS COMPANY   | TELEPHONE COMPANY   | PUBLIC TRANSPORTATION  |
| VIRGINIA NATURAL GAS<br>5100 E.VIRGINIA BEACH BLVD.<br>NORFOLK, VA 23502<br>TEL: (757) 466-5525<br>FAX: (757) 466-5514<br>CONTACT: JOSEPH SIMONS  | VERIZON<br>5701 CLEVELAND ST.<br>VIRGINIA BEACH, VA 23462<br>TEL: (757) 875-2541<br>CONTACT: CARLTON HENERY   | HAMPTON ROADS TRANSIT<br>509 EAST 18th STREET, BLDG 4<br>NORFOLK, VA 23504<br>(757) 222-6000 EXT. 6018<br>CONTACT: DON LINT<br>DIRECTOR OF CONSTRUCTION                    |
| LOCAL ENGINEERING OFFICE  | CABLE COMPANY   | NORFOLK SMART TRAFFIC CENTER   |
| CITY OF NORFOLK PUBLIC WORKS<br>810 UNION ST.<br>ROOM 700<br>NORFOLK, VIRGINIA 23510<br>TEL: (757) 664-4602<br>FAX: (757) 664-4603                | COX COMMUNICATIONS<br>5200 CLEVELAND STREET<br>VIRGINIA BEACH, VA 23462<br>(757) 435-5245<br>CONTACT: DEMETRIUS IDLETT  | CITY OF NORFOLK TRANSPORTATION DIVISION<br>810 UNION ST.<br>ROOM 200<br>NORFOLK, VIRGINIA 23510<br>CONTACT: DANIEL RYDZEWSKI<br>TEL: (757) 664-7304<br>FAX: (757) 664-7311 |

NOTES:

1. THE CONTRACTOR SHALL CONTACT THE CITY OF NORFOLK, BUREAU OF ENVIRONMENTAL SERVICES (664-4368) AT LEAST 48 HOURS PRIOR TO ANY LAND DISTURBANCE ACTIVITY TO SCHEDULE A PRE-CONSTRUCTION CONFERENCE.
2. THIS PROPERTY IS LOCATED WITHIN A CITY OF NORFOLK CBPA DESIGNATED INTENSELY DEVELOPED AREA (IDA)

LAND DISTURBANCE

THERE IS APPROXIMATELY 2.43 AC. OF LAND DISTURBANCE FOR THIS PROJECT

SITE WILL NEED VSMP CONSTRUCTION PERMIT PRIOR TO LAND DISTURBANCE. CONTACT THE VIRGINIA DEPARTMENT OF CONSERVATION AND RECREATION AT (804) 225-2613 TO OBTAIN A VSMP CONSTRUCTION PERMIT

SURVEY NOTES:

- S-1. THE MERIDIAN SOURCE OF THIS SURVEY IS BASED ON THE CITY OF NORFOLK GEODETIC CONTROL NETWORK WHICH REFERS TO THE VIRGINIA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 83 (83 HARN). COORDINATE VALUES (IF SHOWN) ARE EXPRESSED IN U.S. SURVEY FEET.
- S-2. ELEVATIONS SHOWN HEREON ARE EXPRESSED IN FEET AND BASED ON THE CITY OF NORFOLK GEODETIC CONTROL NETWORK WHICH REFERS TO NAVD 88. REFERENCE CONTROL STATION UTILIZED: "CN073" ELEV=8.79
- S-3. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ANY/ALL LOT LINES, EASEMENTS, RESTRICTIONS AND CURRENT RIGHTS-OF-WAY WHICH MIGHT AFFECT THE PROJECT AREA SHOWN HEREON.
- S-4. WETLANDS AND WATERS OF THE U.S. WERE DELINEATED BY TIMMONS GROUP AND CONFIRMED BY THE U.S. ARMY CORPS OF ENGINEERS IN A LETTER DATED NOVEMBER 7, 2011 (NAO 2011-02303). TEMPORARY WETLAND IMPACTS ASSOCIATED WITH THIS PROJECT HAVE BEEN AUTHORIZED BY THE U.S. ARMY CORPS OF ENGINEERS UNDER THE TERMS AND CONDITIONS OF NATIONWIDE PERMIT 27 IN A LETTER DATED SEPTEMBER 28, 2012 (NAO 2011-02303).
- S-5. THE UNDERGROUND UTILITIES SHOWN ARE BASED ON A COMBINATION OF EXISTING MARKINGS, FIELD LOCATED STRUCTURES AND PLAN INFORMATION AVAILABLE. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN HEREON COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THIS SURVEY DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THEIR EXACT LOCATION INDICATED. HOWEVER, THEY HAVE BEEN LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. ALL UNDERGROUND UTILITIES ARE TO BE FIELD VERIFIED BY OTHERS PRIOR TO CONSTRUCTION. MISS UTILITY TICKETS UTILIZED: B009600639, B007601917 & B007601903.
- S-6. RIGHTS-OF-WAY AND LOT LINES SHOWN HEREON WERE COMPILED FROM AVAILABLE PLATS OF RECORD AND SURVEY DRAWINGS OBTAINED FROM THE CITY OF NORFOLK, DIVISION OF SURVEYS. CITY OF NORFOLK, DIVISION OF SURVEYS DRAWINGS UTILIZED: #3521, #3522, #3523 & #3524.
- S-7. AERIAL MAPPING BY MCKENZIE SNYDER, INC., DATED 03/04/10, WAS UTILIZED IN THE PREPARATION OF THIS SURVEY.

# CIVIL CONSTRUCTION PLANS FOR GREENWAY STORMWATER PARK NORFOLK, VIRGINIA JUNE 5, 2013 SITE PLAN # 12-0053



VICINITY MAP  
SCALE: 1" = 2,000'

PRIOR TO CONSTRUCTION,  
CONTRACTOR SHALL CALL  
"MISS UTILITY" OF VIRGINIA  
DIAL - 811  
FOR LOCATION OF UNDERGROUND UTILITIES

SHEET INDEX:

- C-001 - COVER SHEET
- C-002 - GENERAL NOTES
- C-101 - OVERALL PLAN
- C-201 - EXISTING CONDITIONS
- C-301 - DEMOLITION & EROSION CONTROL PLAN
- C-401 - GRADING PLAN AND PROFILE
- C-402 - GRADING PLAN AND PROFILE
- C-501 - SITE PLAN
- C-601 - EROSION CONTROL NOTES
- C-602 - EROSION CONTROL DETAILS
- C-603 - EROSION CONTROL & GENERAL DETAILS
- C-701 - HYDROLOGY AND HYDRAULICS PLAN
- L-101 - LANDSCAPE PLAN
- L-102 - LANDSCAPE NOTES AND DETAILS

ENGINEER / LANDSCAPE  
ARCHITECT:

TIMMONS GROUP  
208 GOLDEN OAK COURT  
SUITE 230  
VIRGINIA BEACH, VIRGINIA 23452  
PHONE: (757) 213-6662  
FAX: (757) 340-1415  
CONTACT: LIZ SCHEESSELE, PE, CFM

SURVEYOR:

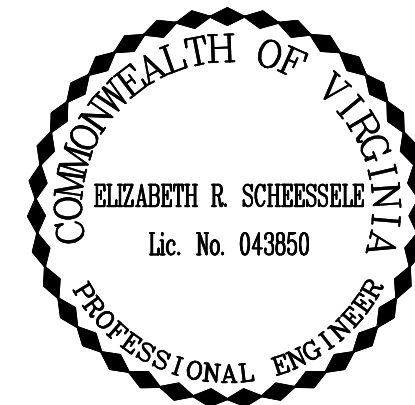
BLAKEWAY CORPORATION  
770 INDEPENDENCE CIRCLE  
SUITE 100  
VIRGINIA BEACH, VIRGINIA 23455  
PHONE: (757) 226-0081  
FAX: (757) 226-8765  
CONTACT: CHARLES L. SMITH III, L.S.

OWNER:

CITY OF NORFOLK  
DEPARTMENT OF PUBLIC WORKS  
STORMWATER DIVISION  
2233 McKANN AVENUE  
NORFOLK, VIRGINIA 23509  
PHONE: (757) 823-4000  
FAX: (757) 441 2402  
CONTACT: MR. REY HERNANDEZ, P.E.

SIGNATURE BLOCK FOR CITY USE

DIRECTOR OF PLANNING \_\_\_\_\_ DATE \_\_\_\_\_



THIS DRAWING PREPARED AT THE  
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TEL 804.200.0300 FAX 804.580.1016 www.timmons.com

YOUR VISION ACHIEVED THROUGH OURS.

| REVISION DESCRIPTION |  |
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|-------------|---------------|
| DATE        |               |
| 6/5/2013    |               |
| DRAWN BY    | L. MARSH      |
| DESIGNED BY | S. KRIEBEL    |
| CHECKED BY  | L. SCHEESSELE |
| SCALE       | NO SCALE      |

TIMMONS GROUP  
GREENWAY STORMWATER PARK  
CITY OF NORFOLK, VA  
COVER SHEET

|                  |                    |
|------------------|--------------------|
| JOB NO.<br>31926 | SHEET NO.<br>C-001 |
|------------------|--------------------|

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GENERAL

1. ALL CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM WITH THESE DRAWINGS, PROJECT SPECIFICATIONS, AND WITH ALL CURRENT APPLICABLE CODES AND THE LATEST REVISIONS OF THE FOLLOWING REFERENCE DOCUMENTS:

(A) VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) ROAD AND BRIDGE SPECIFICATIONS

(B) VDOT ROAD AND BRIDGE STANDARDS

(C) MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)

(D) VIRGINIA WORK AREA PROTECTION MANUAL

(E) VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH)

(F) CITY OF NORFOLK CONSTRUCTION SPECIFICATIONS AND STANDARDS

2. ALL CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM WITH THE CURRENT SPECIFICATIONS AND STANDARDS OF THE CITY OF NORFOLK, VA. DEPARTMENT OF PUBLIC UTILITIES CONSTRUCTION STANDARDS ARE SET FORTH IN THEIR CONSTRUCTION SPECIFICATIONS AND STANDARDS FOR WATER AND SANITARY SEWERAGE FACILITIES (HRPDC 5TH EDITION), AND THE CURRENT DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE SPECIFICATIONS AND STANDARDS. A COPY OF WHICH MUST BE PURCHASED FROM DPU BY THE CONTRACTOR AND KEPT AT THE JOB SITE AT ALL TIMES. REFERENCE TO VDOT SHALL MEAN THE CURRENT STANDARDS AND/OR SPECIFICATIONS OF VDOT.

3. ALL CONCRETE TO BE MINIMUM CLASS A-3 AIR ENTRAINED (3000 P.S.I.)

4. CONTRACTOR SHALL MAKE ANY NECESSARY ADJUSTMENTS TO ALL UTILITY SPLICE BOXES, JUNCTION BOXES, METER BOXES, ELECTRICAL SPLICE BOXES, MANHOLES, CLEANOUTS, AND OTHER ITEMS IN SIDEWALK TO MATCH FINISHED SIDEWALK GRADE.

5. WHERE PROPOSED ENTRANCES AND CURB AND GUTTER TIE INTO EXISTING, ELEVATIONS AND ALIGNMENTS SHALL BE MATCHED.

6. FOR WORK IN THE CITY OF NORFOLK RIGHT-OF-WAY, CONTACT THE FOLLOWING 48 HOURS IN ADVANCE:

RIGHT OF WAY DIVISION: 664-7306

DRAINAGE: 823-4000

LANDSCAPING: 441-2435

DEPARTMENT OF UTILITIES: 823-1000 (5 DAYS IN ADVANCE)

7. THE CONTRACTOR SHALL, AT ALL TIMES, COMPLY WITH ALL OSHA AND STATE SAFETY ORDERS

8. THE CONTRACTOR SHALL OBTAIN ALL APPLICABLE PERMITS AND LICENSES AND KEEP COPIES OF THE SAME ON SITE DURING CONSTRUCTION.

9. THE CONTRACTOR SHALL CHECK ALL DIMENSIONS. ANY DISCREPANCIES FOUND SHALL BE CALLED TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE AND BE RESOLVED BEFORE PROCEEDING WITH ANY WORK

10. ALL INFORMATION SHOWN ON THESE DRAWINGS RELATIVE TO EXISTING CONDITIONS IS GIVEN AS THE BEST PRESENT KNOWLEDGE, BUT WITHOUT GUARANTEE OF ACCURACY. THE CONTRACTOR SHALL REPORT IMMEDIATELY TO THE ENGINEER ANY CONDITIONS CONFLICTING WITH THE DRAWINGS. FIELD MODIFICATIONS TO THE DRAWINGS SHALL NOT BE MADE WITHOUT THE CONSENT OF THE ENGINEER AND OWNER.

11. THE CONTRACTOR SHALL KEEP AND MAINTAIN A SET OF PROJECT PLANS, SPECIFICATIONS, AND SWPPP BINDER ON THE SITE AT ALL TIMES.

12. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER THESE GENERAL NOTES.

13. DIMENSIONS TAKE PRECEDENCE OVER SCALE.

14. ALL SALVAGEABLE ITEMS REMOVED AND NOT USED REMAIN THE PROPERTY OF THE OWNER.

15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING WITH MATCHING MATERIALS ANY PAVEMENT, DRIVEWAY, WALKS, CURBS, TRAFFIC SIGNAL DEVICES, PAVEMENT MARKINGS, ETC. THAT MAY BE CUT, OR THAT ARE DAMAGED DURING CONSTRUCTION AT HIS OWN EXPENSE.

16. ALL RIM ELEVATIONS SHOWN ON PLANS ARE APPROXIMATE ONLY AND SHALL BE ADJUSTED TO MATCH THE FINISHED GRADE.

17. DRIVEWAY APRON IS TO BE NORFOLK STANDARD HS-25 OR HS-31, 6" THICK FOR RESIDENTIAL OR 8" THICK FOR COMMERCIAL. MAINTAIN EXISTING ELEVATION AT STREET/EDGE OF SIDEWALK, REMOVE SIDEWALK AND FORM TO UNIFORM THICKNESS. REMOVE CURB TO BASE. POUR TO BE INTEGRAL WITH APRON. ALL CONCRETE TO BE SAW CUT.

18. CITY OF NORFOLK FLOOD CERTIFICATION: THE PROPERTY SHOWN HEREON APPEARS TO FALL WITHIN FLOOD ZONE "AE" ACCORDING TO F.E.M.A.'S FLOOD INSURANCE RATE MAP (F.I.R.M.) FOR THE CITY OF NORFOLK, VIRGINIA. MAP NUMBER 5101040090F, MAP REVISED: SEPTEMBER 2, 2009

19. THE CONSTRUCTION SITE, ADJACENT AREAS, AND RIGHTS-OF-WAY SHALL BE KEPT CLEAN AND CLEAR OF CONSTRUCTION DEBRIS AT ALL TIMES.

20. FLOWABLE FILL IS NOT AN APPROVED MATERIAL FOR USE IN THE CITY OF NORFOLK FOR BACKFILL WITHOUT PRIOR APPROVAL. THE SELECT MATERIAL AND 21A STONE WILL BE IN ACCORDANCE WITH THE 2007 VDOT ROAD AND BRIDGE SPECIFICATIONS. FOR BACKFILL AROUND THE PIPE USE SELECT MATERIAL (SECTION 207- TYPE I AND 20 CBR COMPACTION. FOR THE SUB BASE MATERIAL USE 6" MIN. VDOT 21A STONE IN ACCORDANCE TO SECTION 208.

21. DETAILED STAMPED DRAWINGS FOR ANY SHORING AND SCAFFOLDING WILL BE REQUIRED AS PART OF THE RIGHT-OF-WAY PERMIT PROCESS.

22. RIGHT-OF-WAY EXCAVATION PERMITS ARE REQUIRED TO PERFORM EXCAVATION WORK, SEWER AND WATER MAIN INSTALLATION, AND ALL APPURTENANCES. PLEASE CONTACT THE DIVISION OF RIGHT-OF-WAY AT 664-7306 OR AT WWW.NORFOLK.GOV/PUBLICWORKS/ROW.

23. THE CONTRACTOR WILL BE REQUIRED TO POST A CASH, CHECK, OR SURETY BOND LETTER OF CREDIT TO EXCAVATE IN THE RIGHT-OF-WAY.

24. WHEN THE CONTRACTOR'S WORK REQUIRES THE SAWCUTTING AND/OR PARTIAL DEMOLITION AND/OR REMOVAL OF ANY SECTION OF AN EXISTING APRON OR SIDEWALK. THE CONTRACTOR WILL BE REQUIRED TO REMOVE SAID EXISTING APRON OR SIDEWALK AND REPLACE IT WITH A NEW MONOLITHIC APRON OR SIDEWALK. SIDEWALK SHALL BE REMOVED TO THE NEAREST JOINT. ALL CONCRETE IS TO BE SAW CUT. NO PATCHING WILL BE ALLOWED. COMMERCIAL APRONS SHALL BE REPLACED WITH AN APPROVED COMMERCIAL APRON. RESIDENTIAL APRONS SHALL BE REPLACED WITH AN APPROVED RESIDENTIAL APRON (HS-207). SIDEWALKS SHALL BE REPLACED WITH AN APPROVED SIDEWALK DETAIL.
- CONTACT THE DIVISION OF RIGHT-OF-WAY FOR APPROVAL 664-7306. (ORDINANCE NO: 40,778)

25. FULL CURB TO CURB RESURFACING MAY BE REQUIRED IF ROADWAY PORTION IS CUT WITHIN THE FIRST 5 YEARS AFTER RESURFACING.

26. WHEN A NEW APRON AND/OR SIDEWALK IS INSTALLED, ALL NEW OR EXISTING UTILITY STRUCTURES SHALL BE INSTALLED AND/OR RELOCATED OUTSIDE THE AREA OF THE NEW APRON AND/OR SIDEWALK. A PERMIT AND INSPECTION ARE REQUIRED.

27. AS PART OF THE CONTRACTOR'S PERMIT APPLICATION TO WORK IN THE RIGHT OF WAY, THE CONTRACTOR MUST SUBMIT A MAP IDENTIFYING THE PROJECT STORAGE AND LAY DOWN AREA. THE CITY DOES NOT ALLOW STORAGE, STAGING OR LAY DOWN AREAS WITHIN THE RIGHT OF WAY. CONTRACTORS ARE ENCOURAGED TO MAKE ARRANGEMENTS TO STORE MATERIALS AND LAY DOWN ON PRIVATE PROPERTY OR THEY MUST BE STORED WITHIN THE CONSTRUCTION SITE.

28. ALL TEMPORARY BULK WASTE CONTAINERS PLACED IN THE RIGHT OF WAY REQUIRE A PERMIT FROM THE DIVISION OF RIGHT OF WAY (664-7306).

29. ANY EXCAVATION IN THE ROADWAY WITH A TEMPORARY STONE(21A) RESTORATION WILL BE REQUIRED TO HAVE BASE COURSE ASPHALT IN PLACE WITHIN 30 DAYS.

30. ALL MISS UTILITY MARKINGS IN THE RIGHT-OF-WAY ARE REQUIRED TO BE ERADICATED AT THE COMPLETION OF THE PROJECT.

31. DURING CONSTRUCTION "CUT AND HAUL" METHODOLOGY FOR ALL EXCESS CUT MATERIAL SHALL BE USED IN LIEU OF STOCKPILE. IN THE EVENT THAT STOCKPILING IS NECESSARY, THE CONTRACTOR SHALL CONTACT NORFOLK PUBLIC WORKS AT (757) 664-4614 TO DETERMINE A SUITABLE LOCATION AND SECURE THE STOCKPILE AREA WITH A DOUBLE ROW OF SILT FENCE.
- MAINTENANCE OF TRAFFIC
1. PRIOR TO THE SCHEDULING OF A PRE-CONSTRUCTION CONFERENCE, THE CONTRACTOR SHALL SUBMIT A PRELIMINARY TRAFFIC CONTROL PLAN FOR REVIEW BY THE DIVISION OF TRAFFIC ENGINEERING, DEPARTMENT OF PUBLIC WORKS. THE TRAFFIC CONTROL PLAN AS WELL AS ALL TRAFFIC CONTROL DEVICES UTILIZED ON THE PROJECT MUST COMPLY WITH THE "FEDERAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" AND "THE VIRGINIA WORK AREA PROTECTION MANUAL" FOLLOWING APPROVAL OF THE PLAN, A REPRODUCIBLE DRAWING SHALL BE SUBMITTED TO THE OFFICE OF THE DIRECTOR OF UTILITIES FOR USE AND DISTRIBUTION.

2. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT A DETAILED MAINTENANCE OF TRAFFIC CONTROL PLAN (MOT) WITH THE CONTRACTOR'S PERMIT APPLICATION TO WORK IN THE RIGHT-OF-WAY. THE MOT SHALL BE A DRAWING OR AERIAL PHOTO WITH SITE SPECIFIC DETAILS. THESE SHALL INCLUDE BUT ARE NOT LIMITED TO: TRAFFIC SIGNS, DIRECTIONAL SIGNS, DESTINATION SIGNAGE, CHANNELIZING DEVICES, WATER-FILLED BARRIERS, PORTABLE MESSAGE BOARDS WITH MESSAGES TO BE DISPLAYED AND TIMES AND DURATIONS OF DISPLAYED MESSAGES. ADDITIONALLY, THE MOT SHALL DISPLAY THE EXACT LOCATION OF ALL SIGNS AND/OR DEVICES INCLUDING SPACING FOR EACH SIGN AND/OR DEVICE, SPACING BEING APPROPRIATE FOR THE WORK ZONE LOCATION AND POSTED SPEED LIMITS. ALL MOT PLANS SHALL CONFORM TO THE CURRENT ISSUE OF "THE VIRGINIA WORK AREA PROTECTION MANUAL." COPIES OR REPRODUCTIONS OF THE MOT THAT ARE INCLUDED WITH THE PROJECT DRAWINGS AND SPECIFICATIONS WILL NOT BE ACCEPTED WITH THE CONTRACTOR'S PERMIT APPLICATION. CONTRACTORS SHOULD CONSIDER THESE ITEMS WHEN BIDDING PROJECT FOR CONSTRUCTION.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK ZONE SIGNING, DELINEATION PAVEMENT MARKINGS AND ANY OTHER TRAFFIC CONTROL DEVICES NECESSARY TO PERFORM THE WORK. UPON COMPLETION OF THE WORK THE CONTRACTOR SHALL IMMEDIATELY REMOVE ALL SUCH TEMPORARY DEVICE.

4. NO LANE CLOSURES AND/OR WORK IN THE RIGHT OF WAY, INCLUDING GRADING, SIDEWALK, CURB AND GUTTER, AND DRIVEWAY APRON INSTALLATION WILL BE ALLOWED WITHOUT A PERMIT FROM THE DIVISION OF RIGHT OF WAY (664-7306). ALL TRAFFIC CONTROL SHALL COMPLY WITH THE CURRENT EDITION OF THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)", THE "VIRGINIA WORK AREA PROTECTION MANUAL" AND THE "CITY OF NORFOLK RIGHT OF WAY EXCAVATION AND RESTORATION MANUAL. ADDITIONAL CHARGES APPLY IF OFF-DUTY OFFICERS ARE REQUIRED. A LIST OF PERMIT FEES IS LOCATED AT WWW.NORFOLK.GOV/PUBLICWORKS/ROW.

5. CONTRACTOR SHALL NOT CLOSE TRAFFIC LANES WITHOUT A PERMIT FROM THE RIGHT OF WAY DIVISION (664-7306).

6. TRAFFIC CONTROL PLANS AND DETAILS ARE REQUIRED FOR ALL CONSTRUCTION IN THE RIGHT-OF-WAY. WORK IN THE CITY RIGHT-OF-WAY IS PERMITTED ONLY BETWEEN THE HOURS OF 9:00AM AND 3:00PM OR AS DETERMINED BY THE CITY RIGHT OF WAY ADMINISTRATOR

7. EMERGENCY VEHICLE ACCESS SHALL BE MAINTAINED AT ALL TIMES WITHOUT EXCEPTION.
- DEMOLITION
1. CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF ALL THE REMOVED/DEMOLISHED MATERIAL FROM THE PROJECT SITE AND DISPOSAL OF THE SAME IN A LEGAL MANNER AND/OR DELIVERY TO THE CITY THOSE ITEMS SO DESIGNATED.

2. CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL, REPLACEMENT AND TEMPORARY RELOCATION OF EXISTING SIGNS.

3. ALL VEGETATION, WOODY, OR OTHERWISE, EXCEPT LAWN, ORNAMENTAL GRASS AND FLOWERS LESS THAN TWENTY-FOUR (24) INCHES IN HEIGHT WITHIN THE 100' CBPA BUFFER REQUIRES A PERMIT FOR REMOVAL, ALTERATION, OR WORK WITHIN THE CRITICAL ROOT ZONE FROM BUREAU OF ENVIRONMENTAL SERVICES (664-4751) WITH SUBSEQUENT MITIGATION REQUIREMENTS.
- UTILITIES
1. PRIOR TO EXCAVATION, THE CONTRACTOR SHALL ASSUME THE RESPONSIBILITY OF LOCATING ANY AND ALL UNDERGROUND UTILITIES (PUBLIC OR PRIVATE) THAT MAY EXIST OR CROSS THROUGH THE AREA OF CONSTRUCTION WHETHER OR NOT THEY ARE SHOWN ON THESE PLANS BEFORE DIGGING. TO AVOID THE UTILITIES, THE CONTRACTOR SHALL CALL "MISS UTILITY OF VIRGINIA" AT "811". THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING, AT HIS SOLE EXPENSE, ANY EXISTING UTILITIES DAMAGED DURING CONSTRUCTION.

2. THIS PLAN DOES NOT GUARANTEE THE EXISTENCE, NON-EXISTENCE, SIZE, TYPE, LOCATION, ALIGNMENT OR DEPTH OF ANY OR ALL UNDERGROUND UTILITIES OR OTHER FACILITIES. WHERE SURFACE FEATURES (MANHOLES, CATCH BASINS, VALVES, ETC.) ARE UNAVAILABLE OR INCONCLUSIVE, INFORMATION SHOWN MAY BE FROM UTILITY OWNER'S RECORDS AND/OR ELECTRONIC LINE TRACING, THE RELIABILITY OF WHICH IS UNCERTAIN.

THE CONTRACTOR SHALL PERFORM WHATEVER TEST EXCAVATION OR OTHER INVESTIGATION IS NECESSARY TO VERIFY TIE-IN INVERTS, LOCATIONS AND CLEARANCES, AND SHALL REPORT IMMEDIATELY ANY DISCREPANCIES TO TIMMONS GROUP AT (804) 200-8500. UTILITY COMPANIES SHALL BE NOTIFIED 48 HOURS IN ADVANCE OF ANY EXCAVATION IN THE PROXIMITY OF THEIR UTILITIES.

3. CONTRACTOR SHALL CONFORM TO THE "OVERHEAD HIGH VOLTAGE LINE SAFETY ACT" (EFFECTIVE JULY 1, 1989) AND SHALL CONTACT THE NECESSARY AUTHORITIES PRIOR TO START OF CONSTRUCTION.

4. STATE LAW MANDATES THE NOTIFICATION OF UTILITY OWNERS 48 HOURS IN ADVANCE OF EXCAVATION. FOR LOCATION OF UTILITIES CALL:

| UTILITY OWNER CONTACT                            | PHONE NUMBER   |
|--|----------------|
| DOMINION VIRGINIA POWER (GAYLENE W. WATSON)      | (757) 393-3824 |
| VERIZON COMMUNICATIONS (CARLTON HENERY)          | (757) 875-2541 |
| COX COMMUNICATIONS (DEMETRIUS IDLETT)            | (757) 435-5245 |
| VIRGINIA NATURAL GAS (JOSEPH SIMONS)             | (757) 466-5525 |
| HAMPTON ROADS SANITATION DISTRICT                | (757) 460-2261 |
| CITY OF NORFOLK DEPT. OF UTILITIES (DAVID SPEER) | (757) 664-6724 |
5. PROPOSED CITY RIGHT-OF-WAY AND CITY UTILITY EASEMENT WATER AND SEWER WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF NORFOLK MODIFICATIONS TO HRPDC REGIONAL STANDARDS 5TH EDITION, THE HAMPTON ROADS PLANNING DISTRICT COMMISSION REGIONAL STANDARDS, AND THE LATEST EDITION OF THE VIRGINIA DEPARTMENT OF HEALTH REGULATIONS.

6. THE UTILITIES FIELD ENGINEERING OFFICE SHALL BE CONTACTED AT 823-1001 FIVE (5) DAYS PRIOR TO START OF WORK TO SCHEDULE AN INSPECTOR AND PRE-CONSTRUCTION CONFERENCE. APPROVED SUBMITTALS REQUIRED ON ALL INSPECTED MATERIALS.

7. WATER METER SETTINGS AND FIRE SERVICE DETECTOR CHECK INSTALLATIONS SHALL BE PERFORMED BY CITY FORCES AT THE CITY'S EXPENSE.

8. WATER SERVICE ABANDONMENT SHALL BE PERFORMED BY CITY FORCES. CALL UTILITIES WATER DISTRIBUTIONS AT 823-1001 TO COORDINATE.

9. THE CONTRACTOR SHALL CONFORM TO ALL REQUIREMENTS OF THE "CITY OF NORFOLK TREE ORDINANCE" (EFFECTIVE JANUARY 15, 1998) AND NORFOLK'S ARBORICULTURAL SPECIFICATIONS AND STANDARDS OF PRACTICE MANUAL.

10. CONTACT CITY FORESTER (757) 823-4024 TO INSPECT TREES SCHEDULED FOR DEMOLITION OR PRUNING WITHIN THE RIGHT-OF-WAY OR OTHER PUBLIC PROPERTY AND TO GET A PERMIT FOR WORK. ANY EXCAVATIONS THAT OCCUR WITHIN THE ABOVE-MENTIONED TREE PROTECTION AREAS INTENDED TO BE PRESERVED WILL NEED TO HAVE ROOT PRUNING DONE AT 1' 0" TO THE INSIDE EDGE OF THE PROPOSED EXCAVATION.

11. ALL PLANTING, PRUNING AND REMOVAL PERMITS FOR WORK ON PUBLIC TREES IN PUBLIC PROJECTS MAY HAVE VARIOUS SPECIFIC REQUIREMENTS, INCLUDING BUT NOT LIMITED TO, REQUIREING PROFESSIONAL ISA CERTIFIED ARBORISTS PERFORM URBAN FORESTRY WORK.

12. PROPOSED FIRE HYDRANT PIPING TO BE 6" DUCTILE IRON PIPE CLASS 52 MINIMUM WITH MECHANICAL RESTRAINED JOINTS AND FIRE HYDRANT VALVES RODDED TO SERVICE TEES. FIRE HYDRANT VALVES LOCATED NO GREATER THAT 3 LINEAR FEET FROM SERVICE TEES.

13. LOCATION AND DEPTH OF ALL PUBLIC UTILITIES SHALL BE FIELD VERIFIED BY CONTRACTOR WITH A NORFOLK DEPARTMENT OF UTILITIES INSPECTOR PRESENT. CONTRACTOR SHALL CONTACT THE UTILITIES FIELD ENGINEERS OFFICE. (TEL: 823-1001) AT LEAST 72 HOURS PRIOR TO EXCAVATION TO ARRANGE FOR A NORFOLK DEPARTMENT OF UTILITIES INSPECTOR TO BE PRESENT.

14. ALL HYDRANTS MANUFACTURED WITHIN 10 YEARS OF THE DATE OF THE NOTICE TO PROCEED, SHALL BE CAREFULLY REMOVED IN ORDER TO INSURE THE INTACT AND UNDAMAGED REMOVAL OF THE ENTIRE FIRE HYDRANT AND BARREL ASSEMBLY, SAFELY STORED, TRANSPORTED AND DELIVERED TO THE COMBINED OPERATIONS FACILITY LOCATED AT 1316 BALLENTINE BOULEVARD. (POINT OF CONTACT IS TOBY McLAWHORN / WATER DISTRIBUTION DIVISION AT TELEPHONE; 823-1008.) THE CONTRACTOR SHALL REPLACE FIRE HYDRANTS THAT ARE TO BE DELIVERED TO THE CITY THAT ARE DAMAGED OR LOST DURING REMOVAL AND / OR TRANSPORT, WITH A NEW FIRE HYDRANT AT NO ADDITIONAL COST TO THE CITY.

15. STAKEOUTS FOR PROPOSED WATER AND SEWER LINES SHALL BE PERFORMED BY A VIRGINIA LICENSED SURVEYOR. WRITTEN CUT SHEETS SHALL BE PROVIDED TO THE UTILITIES FIELD ENGINEER OFFICE FIVE (5) DAYS PRIOR TO COMMENCEMENT OF UTILITY WORK.
- CONSTRUCTION
1. SUBMITTALS ON MATERIALS FOR THIS PROJECT SHALL BE PROVIDED TO THE ENGINEER FOR APPROVAL PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION.

2. ALL CLEARING, GRUBBING AND GRADING SHALL BE PERFORMED IN ACCORDANCE WITH VDOT SPECIFICATIONS AND STANDARDS.

3. THE CONTRACTOR SHALL STRIP TOPSOIL AND ANY ORGANIC LADEN SOIL AND STORE FOR USE IN BACKFILLING, IF DEEMED ACCEPTABLE BY OWNER'S REPRESENTATIVE, AND LANDSCAPING FOR SITE RESTORATION. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ANY EXCESS SOIL AFTER RESTORATION OF THE SITE, OR AS DIRECTED BY THE OWNER.

4. ALL UTILITIES TO BE INSTALLED UNDER THIS PROJECT ARE SHOWN ON THESE PLANS SCHEMATICALLY IN THEIR APPROXIMATE LOCATIONS. THESE UTILITIES INCLUDE: ELECTRIC, WATER, SEWER AND FIBER OPTIC COMMUNICATION. HOWEVER, ADDITIONAL UTILITIES IN THE AREA CONSIST OF WATER, SEWER AND TELEPHONE WHICH MAY REQUIRE ADJUSTMENTS IF EXPOSED DURING CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE THE FINAL LOCATIONS OF THESE UTILITIES IN THE FIELD WITH UTILITY COMPANIES.

5. ALL UNPAVED SURFACES SHALL BE GRADED TO PROVIDE POSITIVE DRAINAGE AWAY FROM PAVED AREAS AND TOWARD DRAINAGE STRUCTURES.

6. THE CONTRACTOR SHALL PROVIDE AND PAY FOR ALL CONSTRUCTION SURVEYING REQUIRED.

7. ALL PAVEMENT MARKINGS AND STRIPING SHALL BE THE COLOR AND PATTERN AS NOTED ON THE PLANS. PAINT SHALL CONFORM TO VDOT SPECIFICATIONS SIZE AND SHAPES SHALL CONFORM TO THE MUTCD.

8. SAW CUTTING OF EXISTING CONCRETE AND ASPHALT PAVING SHALL COMPLY WITH OSHA. THE CONTRACTOR SHALL KEEP DUST TO A MINIMUM AND SHALL BE RESPONSIBLE FOR THE DAMAGE TO AND REPLACEMENT OF ADJACENT MATERIALS AND FINISHES.

9. ALL STORM WATER PIPE JOINTS TO BE WRAPPED WITH A NON WOVEN FILTER CLOTH.

10. AT THE OWNERS DISCRETION EXCESS CLEAN EARTH FILL MATERIAL CONTAINING NO VEGETABLE MATTER, BROKEN CONCRETE OR OTHER DEBRIS MAY BE DISPOSED OF ON THE OWNER'S PROPERTY AT A LOCATION DESIGNATED BY THE OWNER OR AS DESIGNATED ON THE DRAWINGS IN A MANNER APPROVED BY THE OWNER.

1. THE LOCATIONS OF ALL DRAINAGE STRUCTURES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY. THE DIMENSIONS SHOWN ON THE PLANS FOR DROP INLETS AND JUNCTION BOXES ARE APPROXIMATE.

2. ALL STORM SEWER PIPES, MANHOLES, AND CURB INLETS SHALL BE CLEANED OF DEBRIS AND ERODED MATERIALS AT THE LAST STAGES OF CONSTRUCTION.

3. ALL STORM DRAINAGE SYSTEM MEASURES SHALL BE COMPLETED AS SOON AS FEASIBLE IN THE CONSTRUCTION SCHEDULE.

4. TEMPORARY DRAINAGE DURING CONSTRUCTION SHALL BE PROVIDED BY THE CONTRACTOR TO RELIEVE AND PREVENT FLOODING IN AREAS THAT MAY CAUSE DAMAGE TO ROADWAYS.

5. PRECAST STRUCTURES SHALL BE BUILT AND ASSEMBLED IN ACCORDANCE WITH V.D.O.T. STD. 103.01 AND .02 AND NORFOLK APPLICABLE STANDARDS.

6. ALL NEW DRAINAGE STRUCTURES ARE TO HAVE VDOT STD. IS-1 INLET SHAPING.

7. ALL STORM SEWER PIPE IN CITY OF NORFOLK RIGHT OF WAY SHALL BE CLASS III REINFORCED CONCRETE. FOR STRENGTH, SHEET THICKNESS, OR CLASS DESIGNATION; AVAILABLE SIZES; HEIGHT OF FILL LIMITATIONS; AND METHOD OF BEDDING REQUIRED FOR A PARTICULAR HEIGHT OF COVER, SEE THE APPLICABLE VDOT ROAD AND BRIDGE STANDARDS PC-1 AND PB-1.

8. ALL GROUND WATER REMOVED AS A RESULT OF DEWATERING ACTIVITIES DURING CONSTRUCTION SHALL BE FILTERED WITH A FILTRATION DEVICE PRIOR TO DISCHARGE INTO A STORMWATER CONVEYANCE SYSTEM.
- 
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| SCALE<br>NO SCALE           |
- TIMMONS GROUP

GREENWAY STORMWATER PARK

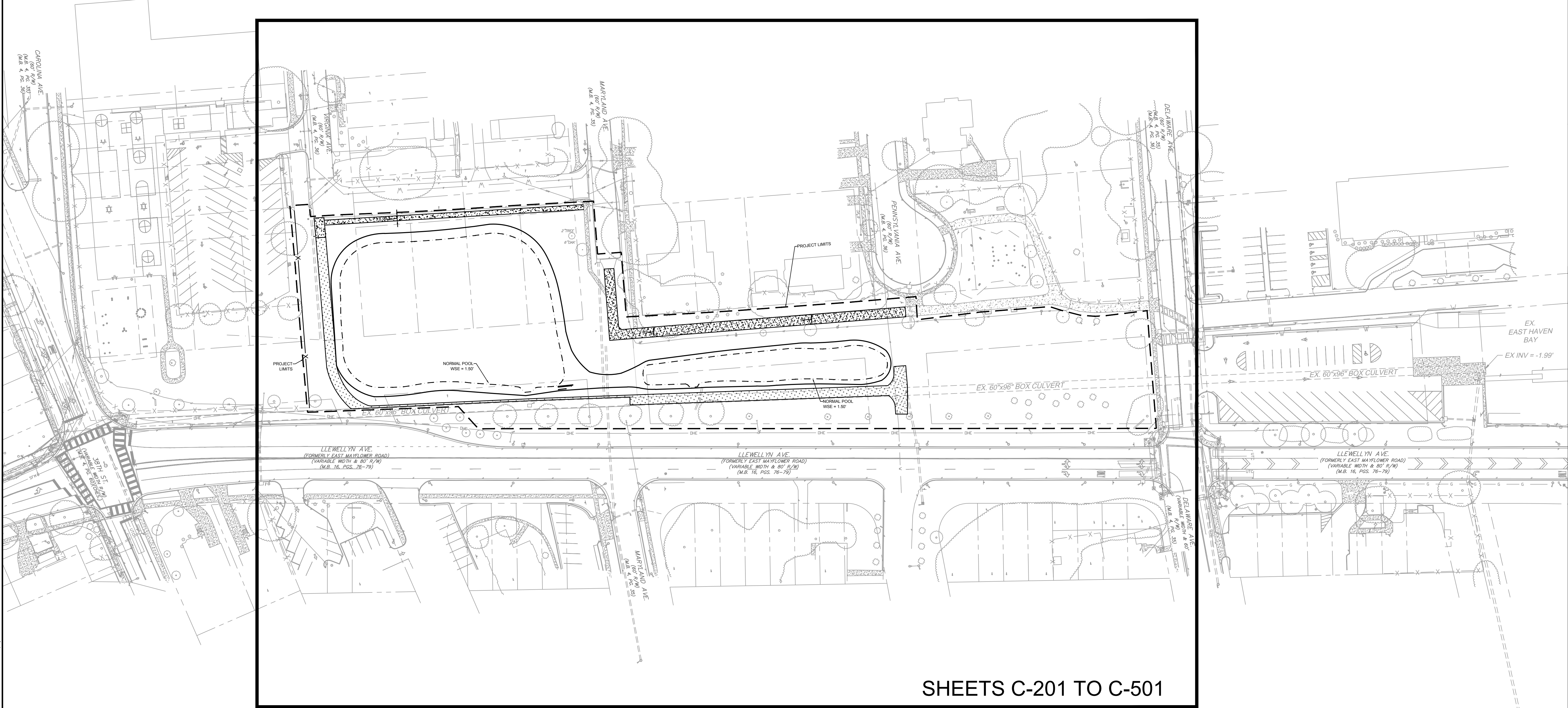
CITY OF NORFOLK, VA

GENERAL NOTES

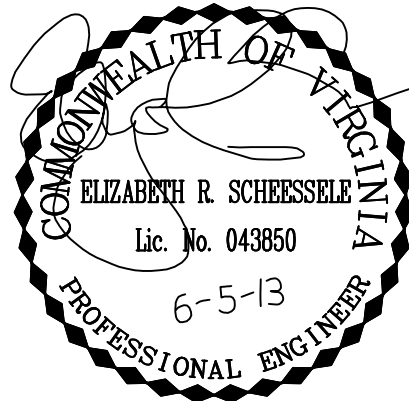
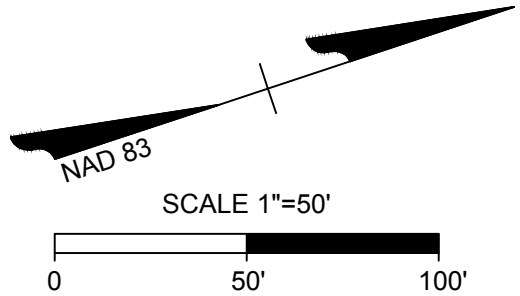
JOB NO.  
31926

SHEET NO.  
C-002
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SHEETS C-201 TO C-501



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| CHECKED BY  | L. SCHEESSELE        |
| SCALE       | 1" = 50'             |

TIMMONS GROUP

GREENWAY STORMWATER PARK

OVERALL PLAN

JOB NO.  
31926

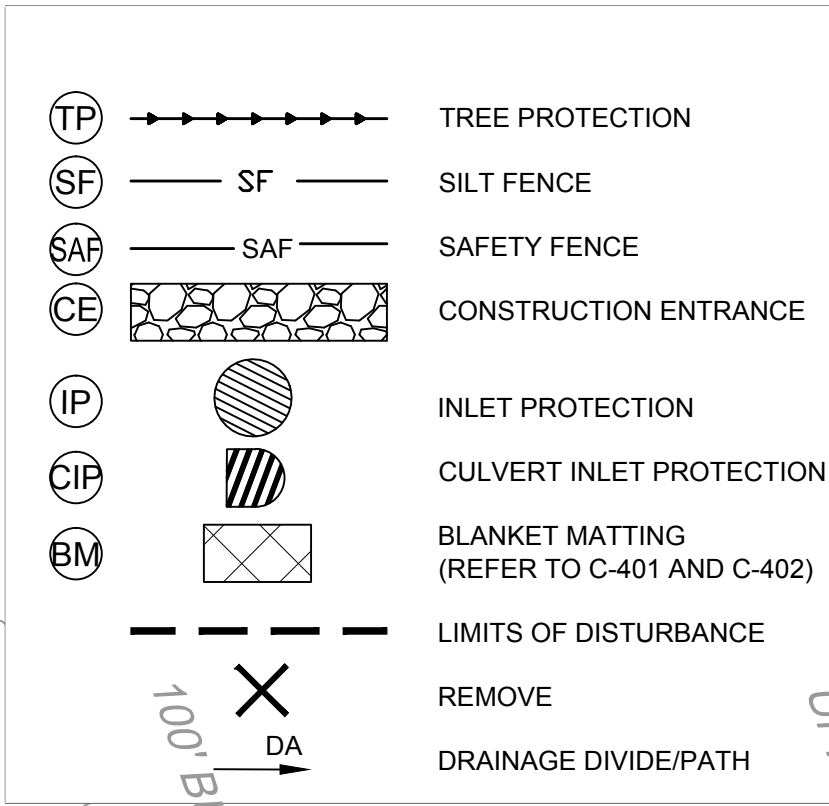
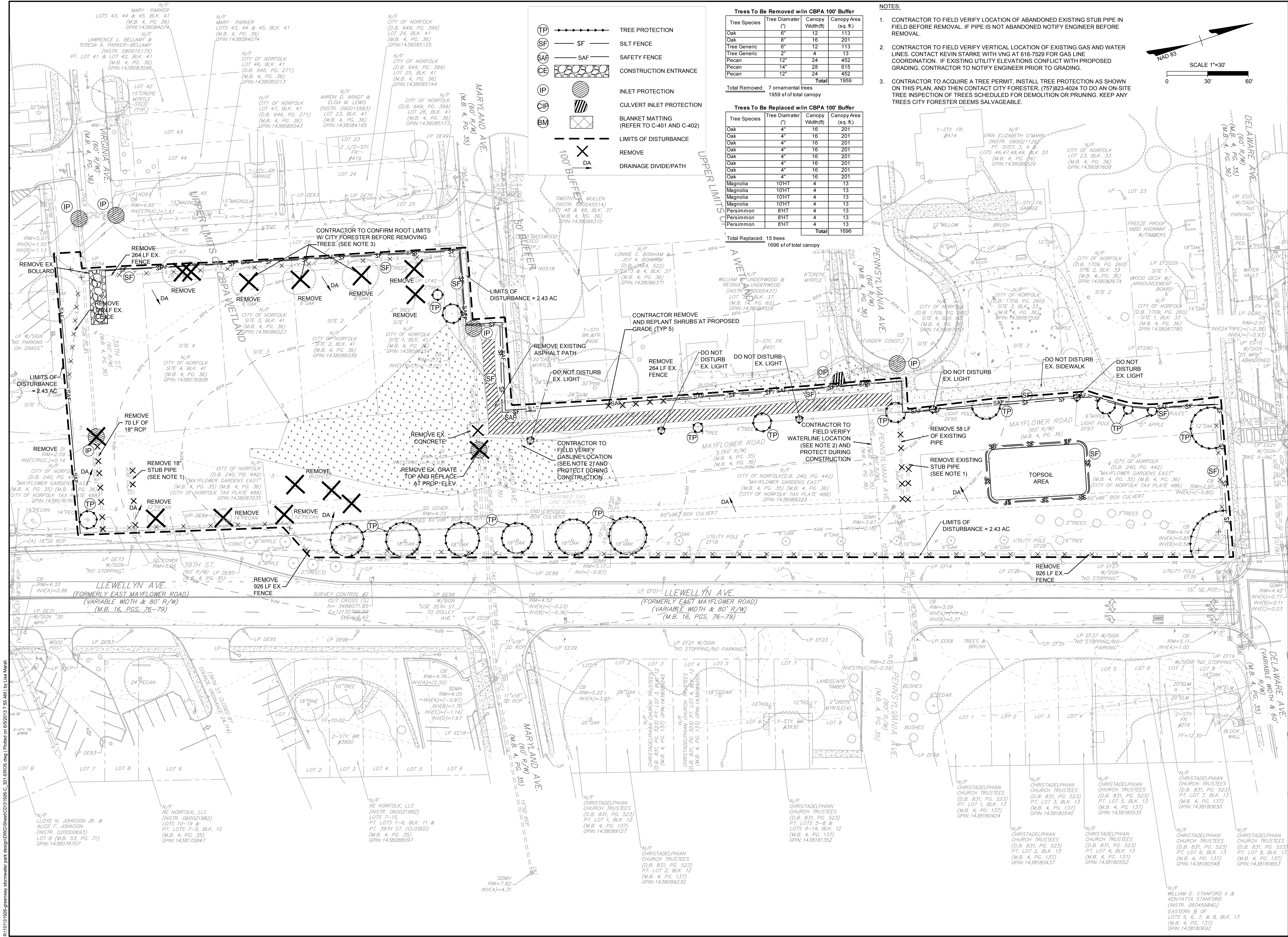
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C-101

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**Trees To Be Removed with CBPA 100' Buffer**

| Tree Species | Tree Diameter (") | Canopy Width(ft) | Canopy Area (sq. ft.) |
|--------------|-------------------|------------------|-----------------------|
| Oak          | 6"                | 12               | 113                   |
| Oak          | 8"                | 16               | 201                   |
| Tree Generic | 6"                | 12               | 113                   |
| Pecan        | 12"               | 24               | 452                   |
| Pecan        | 14"               | 28               | 615                   |
| Pecan        | 12"               | 24               | 452                   |
| <b>Total</b> |                   |                  | <b>1959</b>           |

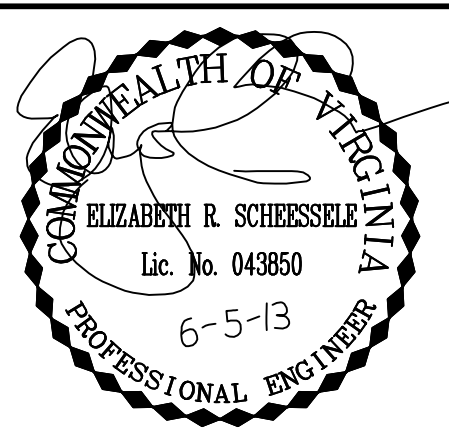
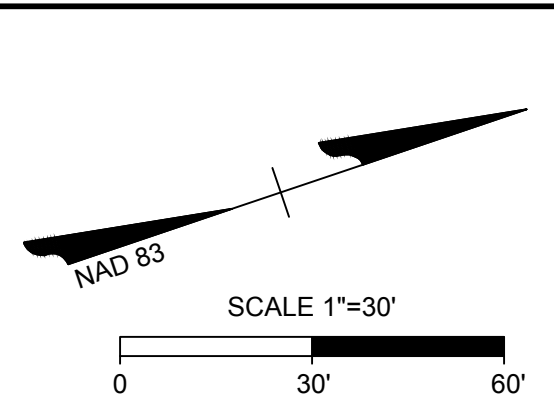
Total Removed: 7 ornamental trees  
1959 sf of total canopy

**Trees To Be Replaced with CBPA 100' Buffer**

| Tree Species | Tree Diameter (") | Canopy Width(ft) | Canopy Area (sq. ft.) |
|--------------|-------------------|------------------|-----------------------|
| Oak          | 4"                | 16               | 201                   |
| Oak          | 4"                | 16               | 201                   |
| Oak          | 4"                | 16               | 201                   |
| Oak          | 4"                | 16               | 201                   |
| Oak          | 4"                | 16               | 201                   |
| Oak          | 4"                | 16               | 201                   |
| Oak          | 4"                | 16               | 201                   |
| Oak          | 4"                | 16               | 201                   |
| Oak          | 4"                | 16               | 201                   |
| Magnolia     | 10"HT             | 4                | 13                    |
| Magnolia     | 10"HT             | 4                | 13                    |
| Magnolia     | 10"HT             | 4                | 13                    |
| Magnolia     | 10"HT             | 4                | 13                    |
| Persimmon    | 8"HT              | 4                | 13                    |
| Persimmon    | 8"HT              | 4                | 13                    |
| <b>Total</b> |                   |                  | <b>1696</b>           |

Total Replaced: 15 trees  
1696 sf of total canopy

- NOTES:
- CONTRACTOR TO FIELD VERIFY LOCATION OF ABANDONED EXISTING STUB PIPE IN FIELD BEFORE REMOVAL. IF PIPE IS NOT ABANDONED NOTIFY ENGINEER BEFORE REMOVAL.
  - CONTRACTOR TO FIELD VERIFY VERTICAL LOCATION OF EXISTING GAS AND WATER LINES. CONTACT KEVIN STARKE WITH VNG AT 616-7529 FOR GAS LINE COORDINATION. IF EXISTING UTILITY ELEVATIONS CONFLICT WITH PROPOSED GRADING, CONTRACTOR TO NOTIFY ENGINEER PRIOR TO GRADING.
  - CONTRACTOR TO ACQUIRE A TREE PERMIT, INSTALL TREE PROTECTION AS SHOWN ON THIS PLAN, AND THEN CONTACT CITY FORESTER, (757)823-4024 TO DO AN ON-SITE TREE INSPECTION OF TREES SCHEDULED FOR DEMOLITION OR PRUNING. KEEP ANY TREES CITY FORESTER DEEMS SALVAGEABLE.



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| DESIGNED BY | S. KRIEBEL    |
| CHECKED BY  | L. SCHEESSELE |
| SCALE       | 1" = 30'      |

# TIMMONS GROUP

## GREENWAY STORMWATER PARK

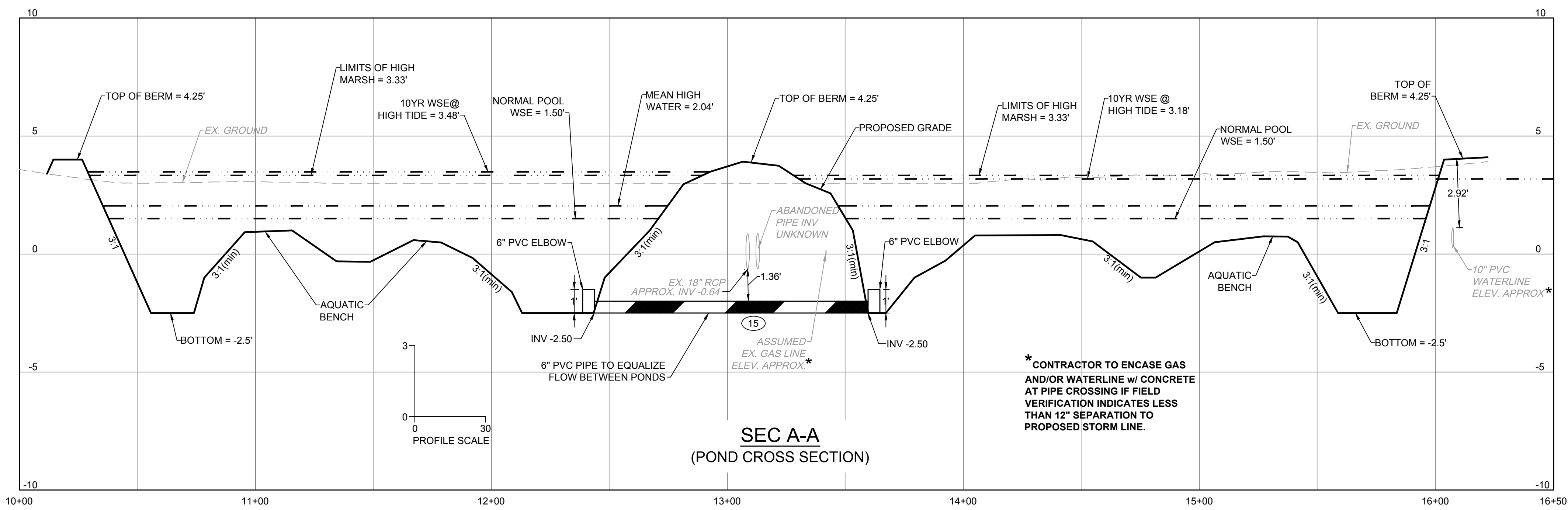
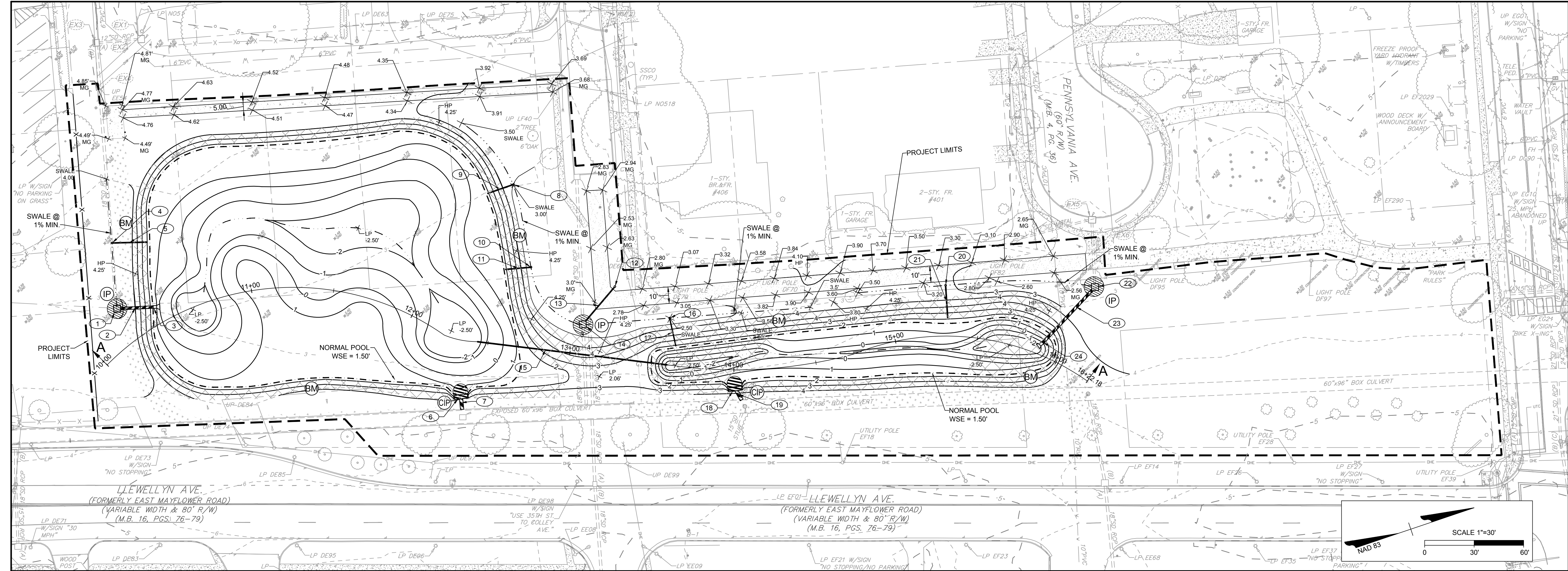
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### DEMOLITION & EROSION CONTROL PLAN

|           |       |
|-----------|-------|
| JOB NO.   | 31926 |
| SHEET NO. | C-301 |

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DRAINAGE DESCRIPTIONS

- NORFOLK STD H-103  
TOP=3.0', H=2.86'
- 22 LF OF 18"Ø CLASS III RCP @ 0.64%  
INV IN=0.14', INV OUT=0.00'
- VDOT STD ES-1 FOR 18"Ø RCP
- NYLOPLAST OR APPROVED EQUAL 12" CIRCULAR GRATE  
RIM = 3.50'; INV OUT=2.50'
- 21 LF OF 6"Ø PVC @ 1.38%  
INV IN = 2.49'; INV OUT = 2.00'
- MODIFIED VDOT STD EW-1  
TOP=4.08', H=3.33'
- 8 LF OF 24"Ø CLASS III RCP  
W/ O-RING GASKETS @ 6.63%  
INV IN=1.50', INV OUT=0.97'
- NYLOPLAST OR APPROVED EQUAL 12" CIRCULAR GRATE  
RIM = 3.00'; INV OUT=2.25'
- 17 LF OF 6"Ø PVC @ 1.50%  
INV IN = 2.25'; INV OUT = 2.00'
- NYLOPLAST OR APPROVED EQUAL 12" CIRCULAR GRATE  
RIM = 2.49'; INV OUT = 1.75'
- 16 LF OF 6"Ø PVC @ 0.50%  
INV IN = 1.75'; INV OUT = 1.66'
- NYLOPLAST OR APPROVED EQUAL 12" CIRCULAR GRATE  
RIM = 2.50'; INV = 1.60
- 30 LF OF 6"Ø PVC @ 0.50%  
INV IN= 1.60'; INV OUT= 1.45'
- EXISTING TOP TO BE REPLACED; BUILD UP STRUCTURE  
NORFOLK STD H-103; TOP = 2.0'  
ENSURE WATERTIGHT CONNECTION
- 116 LF OF 6"Ø PVC @ 0.00%  
INV IN= (-2.50'), INV OUT= (-2.50')
- NYLOPLAST OR APPROVED EQUAL 12" CIRCULAR GRATE  
RIM = 2.64'; INV OUT= 1.89'
- 20 LF OF 6"Ø PVC @ 0.50%  
INV IN = 1.89'; INV OUT = 1.63'
- MODIFIED VDOT STD EW-1  
TOP=4.08', H=3.33'
- 8 LF OF 24"Ø CLASS III RCP  
W/ O-RING GASKETS @ 6.88%  
INV IN=1.50', INV OUT=0.79'
- NYLOPLAST OR APPROVED EQUAL 12" CIRCULAR GRATE  
RIM = 3.00'; INV OUT=2.25'
- 15 LF OF 6"Ø PVC @ 0.15%  
INV IN = 2.25'; INV OUT = 2.22'
- NORFOLK STD H-103  
RIM= 2.33', INV= -1.53'
- 40 LF OF 18"Ø CLASS III RCP @ 1.92%  
INV IN= -1.53', INV OUT= -2.30'
- VDOT STD ES-1 FOR 18"Ø RCP

ELIZABETH R. SCHEESSELE  
Lic. No. 043850  
6-5-13  
PROFESSIONAL ENGINEER

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DESIGNED BY  
S. KRIEBEL

CHECKED BY  
L. SCHEESSELE

SCALE  
AS SHOWN

DATE  
6/5/2013

DRAWN BY  
L. MARSH

DESIGNED BY  
S. KRIEBEL

CHECKED BY  
L. SCHEESSELE

SCALE  
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GREENWAY STORMWATER PARK  
CITY OF NORFOLK, VA

GRADING PLAN AND PROFILE

JOB NO.  
31926  
SHEET NO.  
C-401

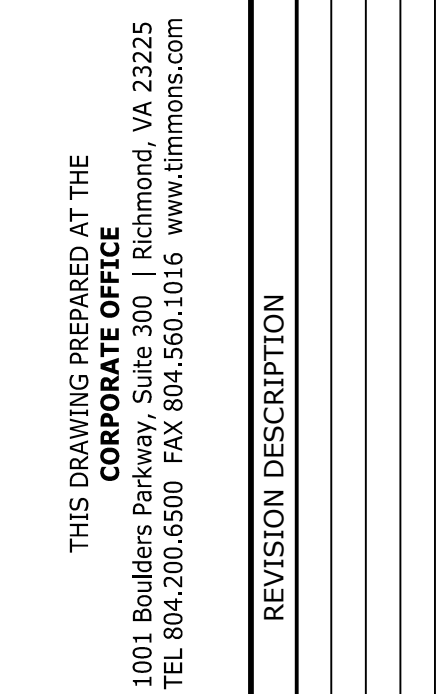
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|      | DESIGNED BY<br>S. KRIEBEL   |  |  |  |
|      | CHECKED BY<br>L. SCHEESSELE |  |  |  |
|      | SCALE<br>1" = 30'           |  |  |  |

# GREENWAY STORMWATER PARK

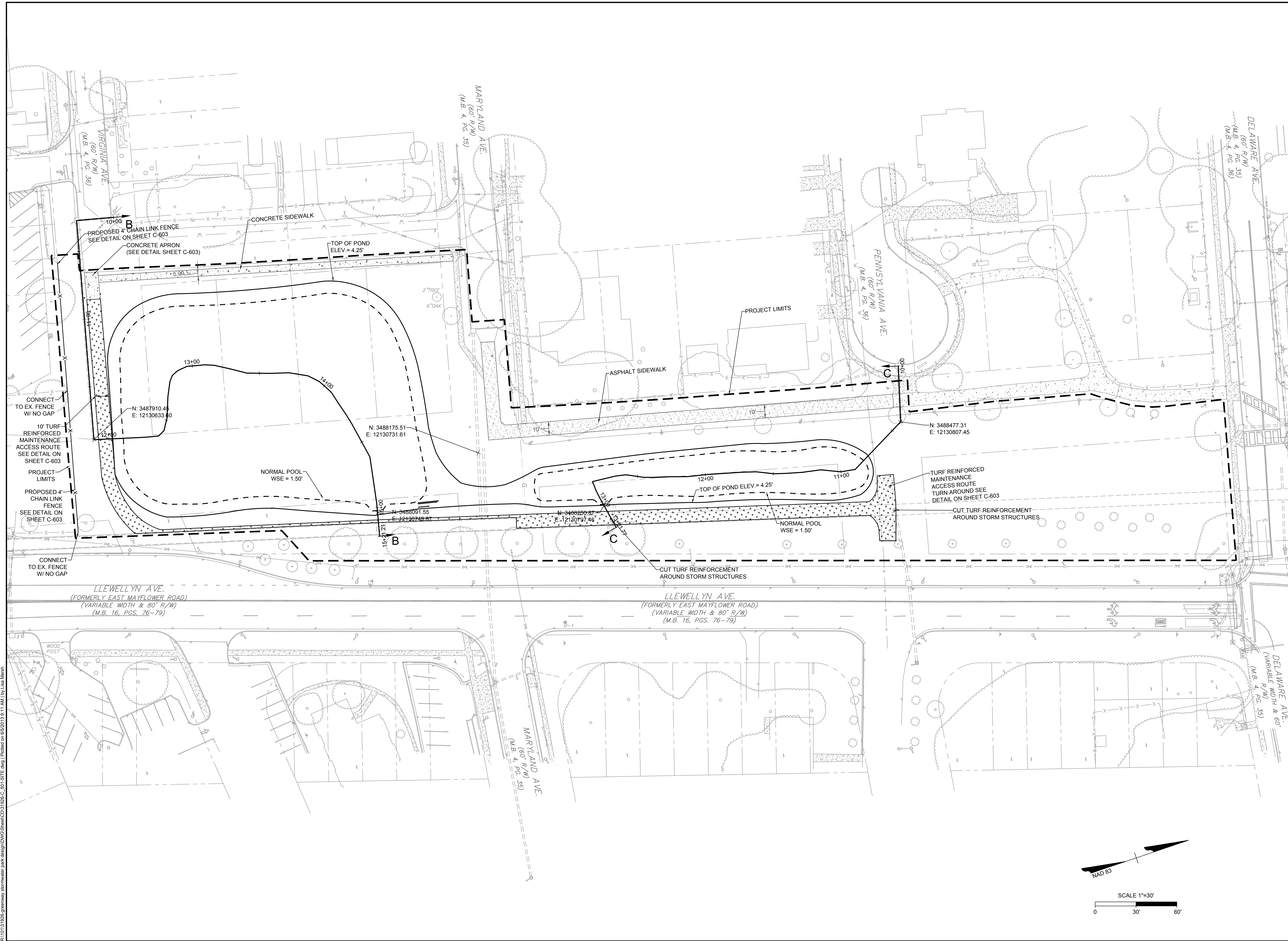
CITY OF NORFOLK, VA

## SITE PLAN

JOB NO.  
**31926**

SHEET NO.  
**C-501**

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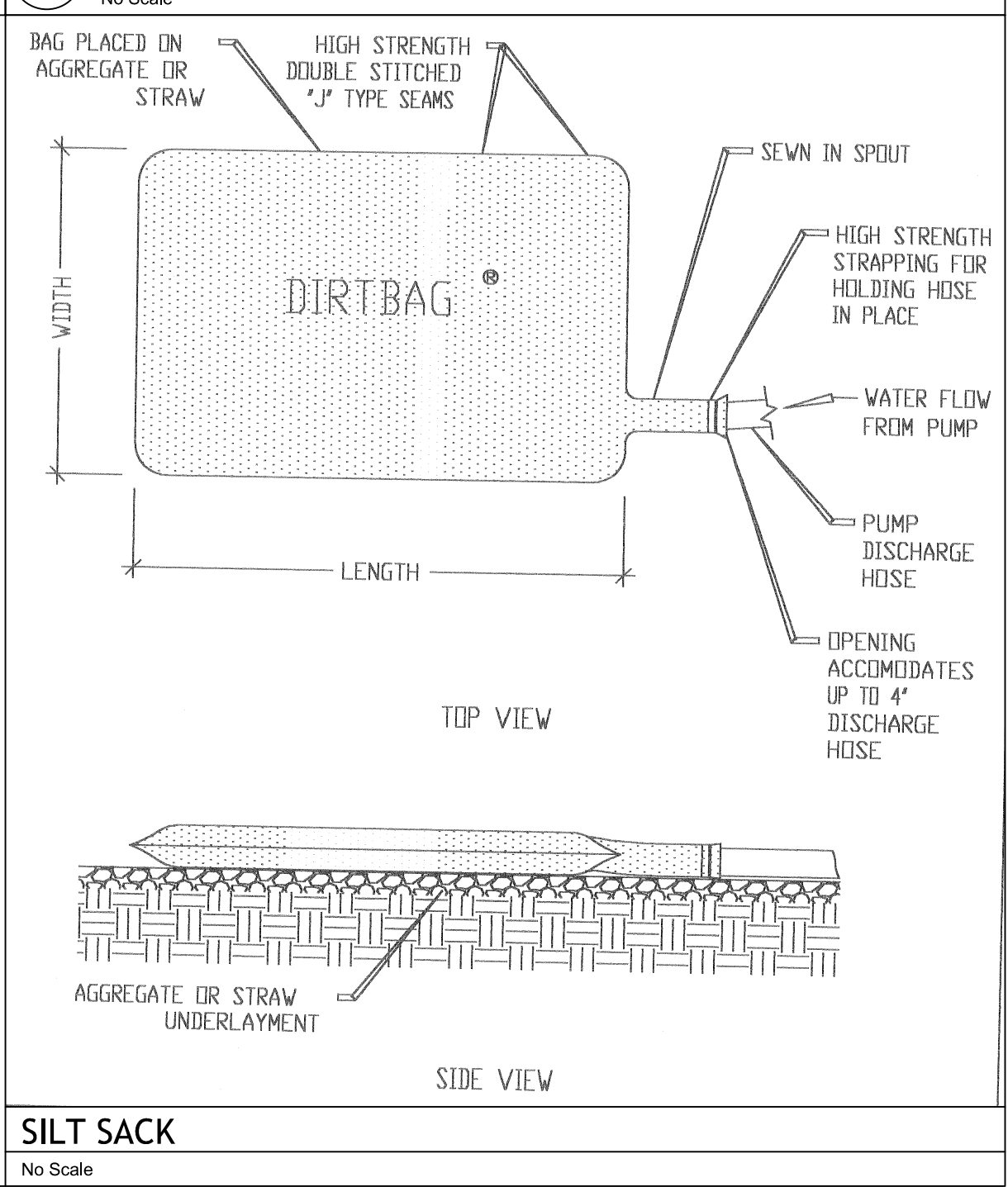
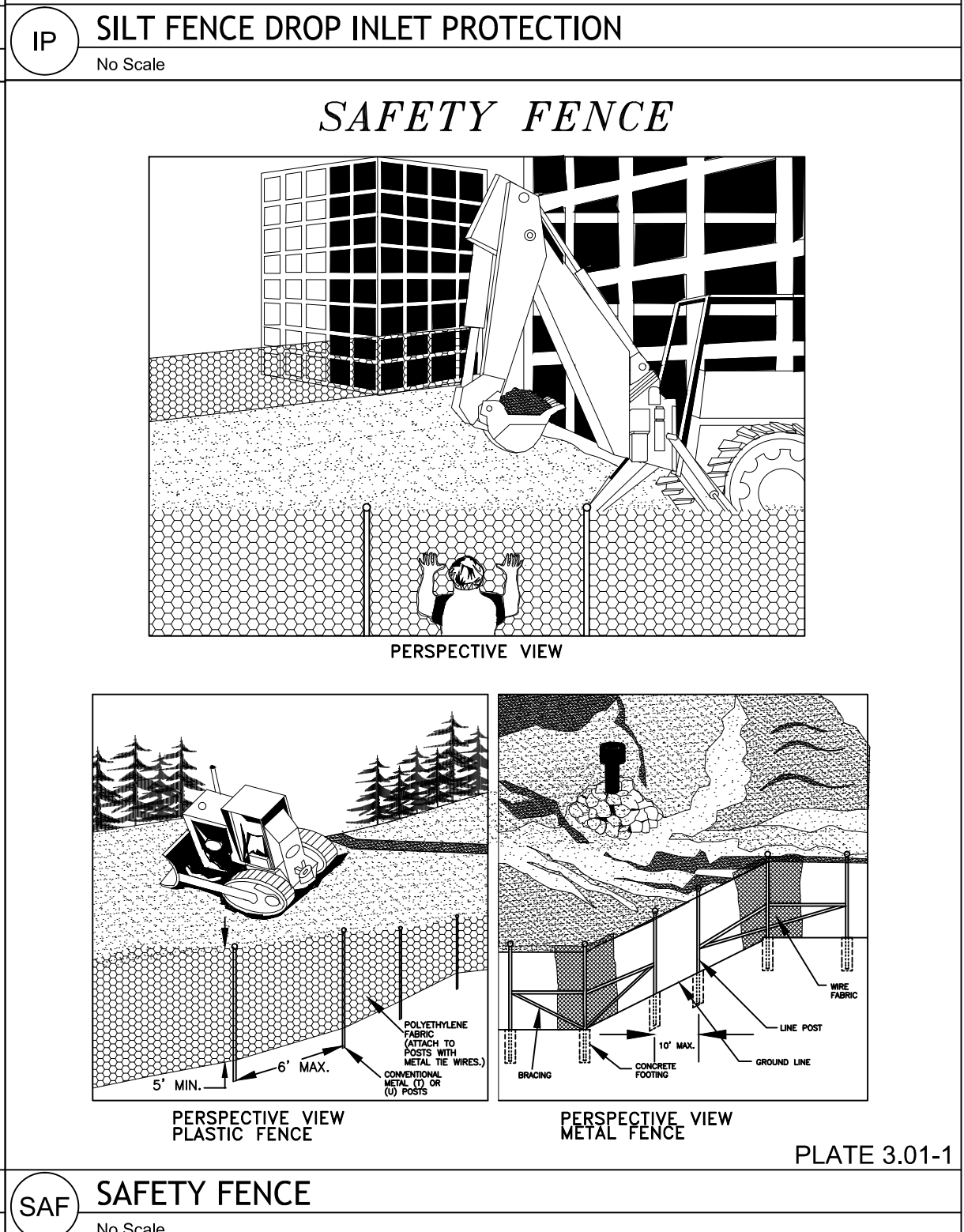
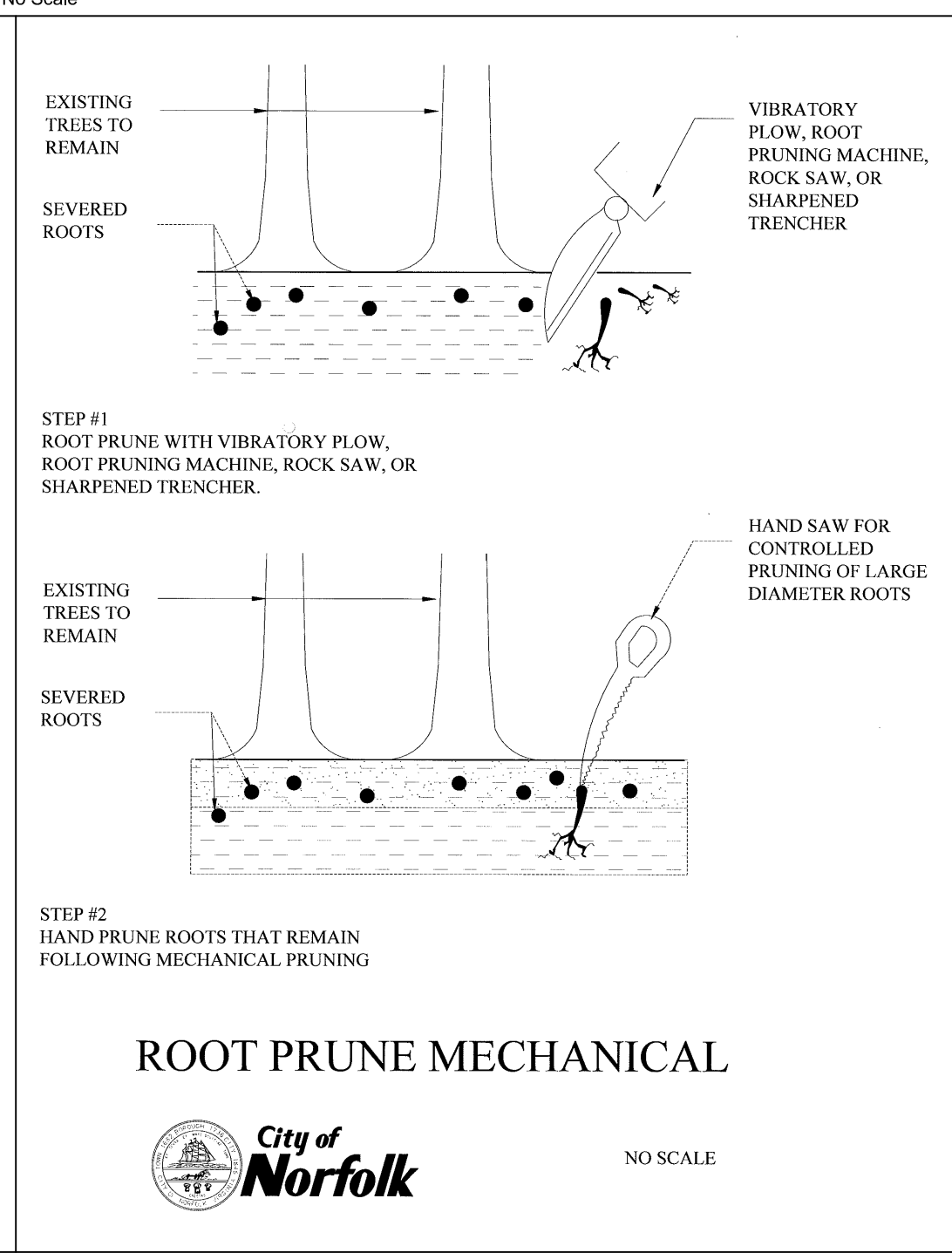
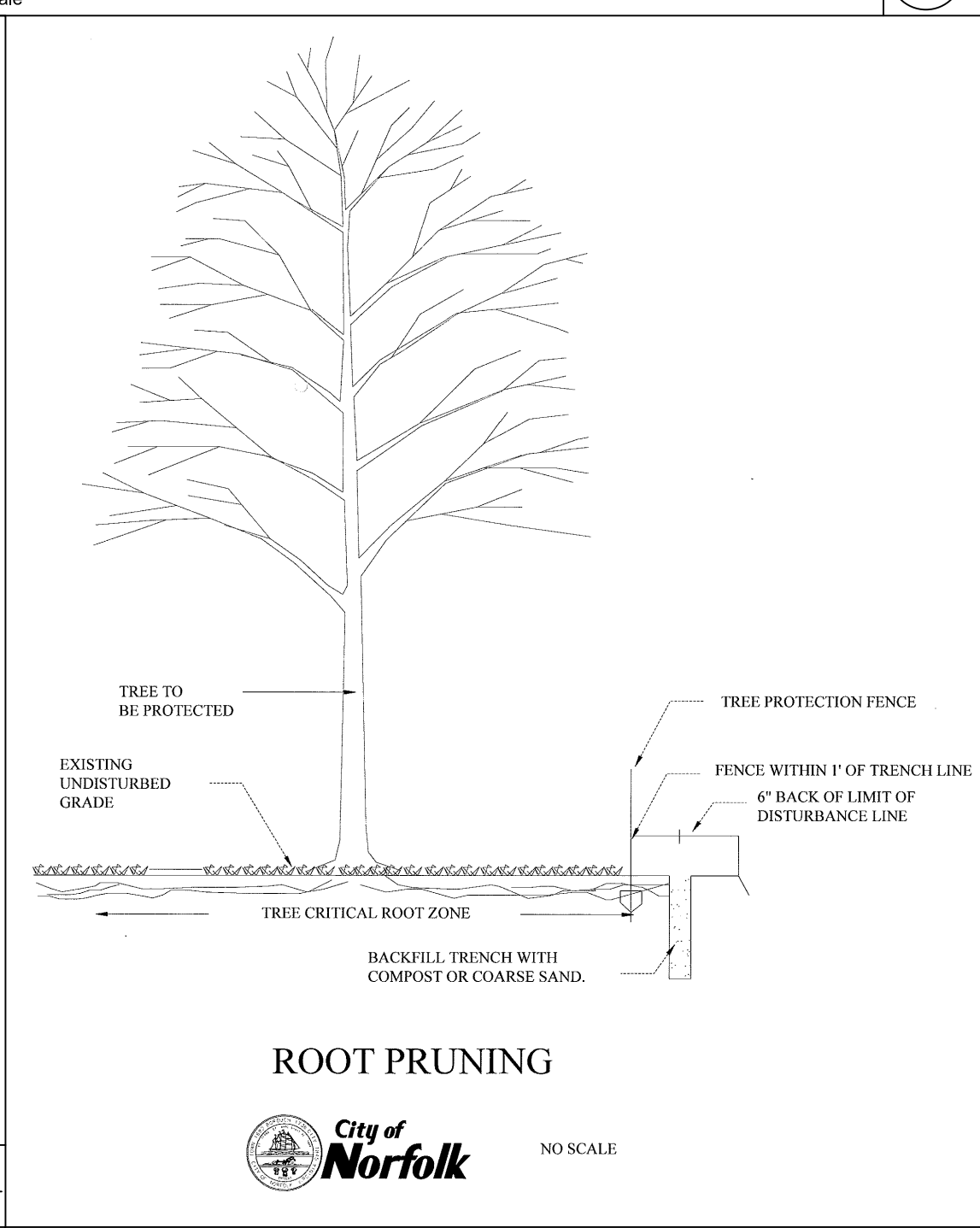
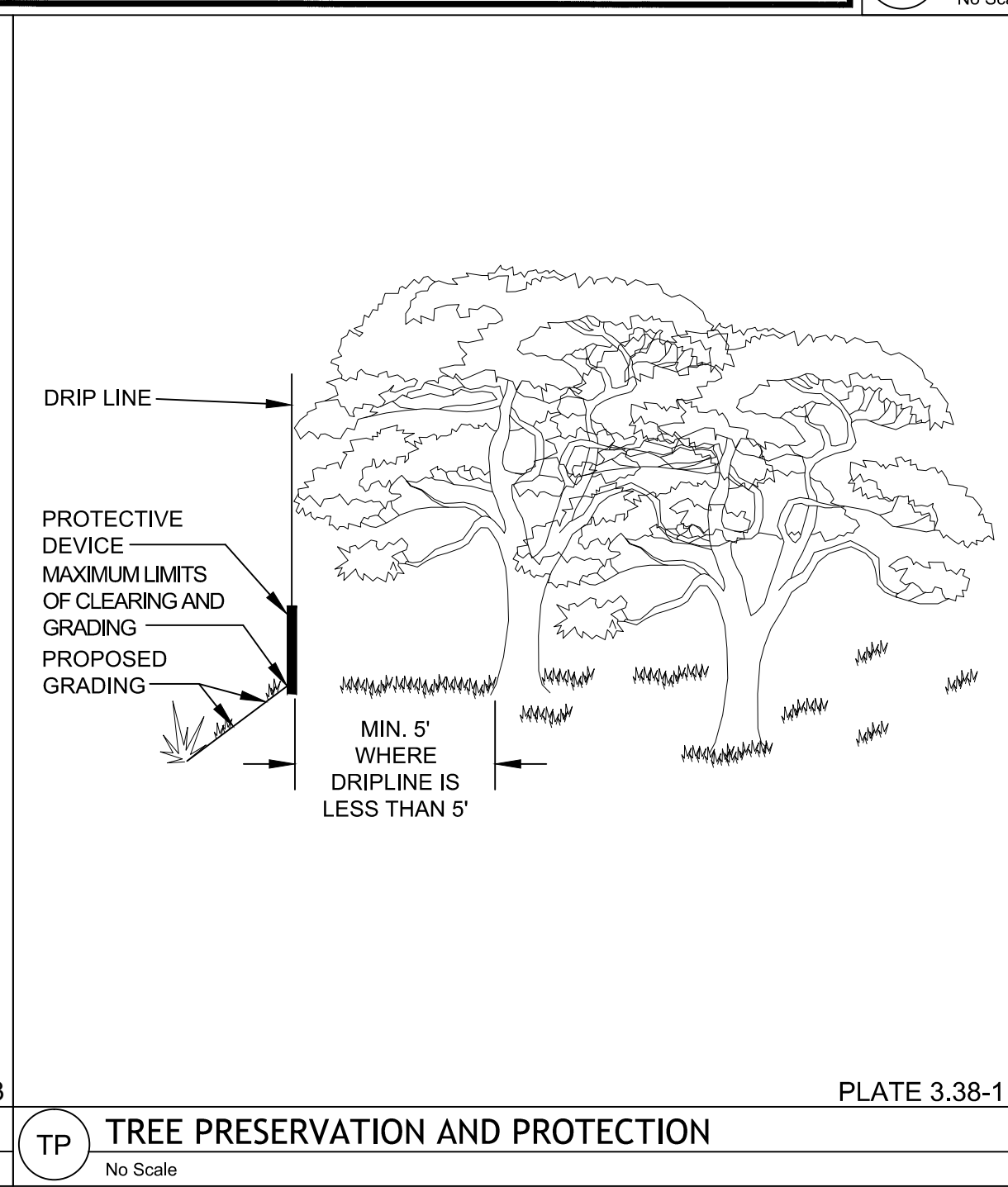
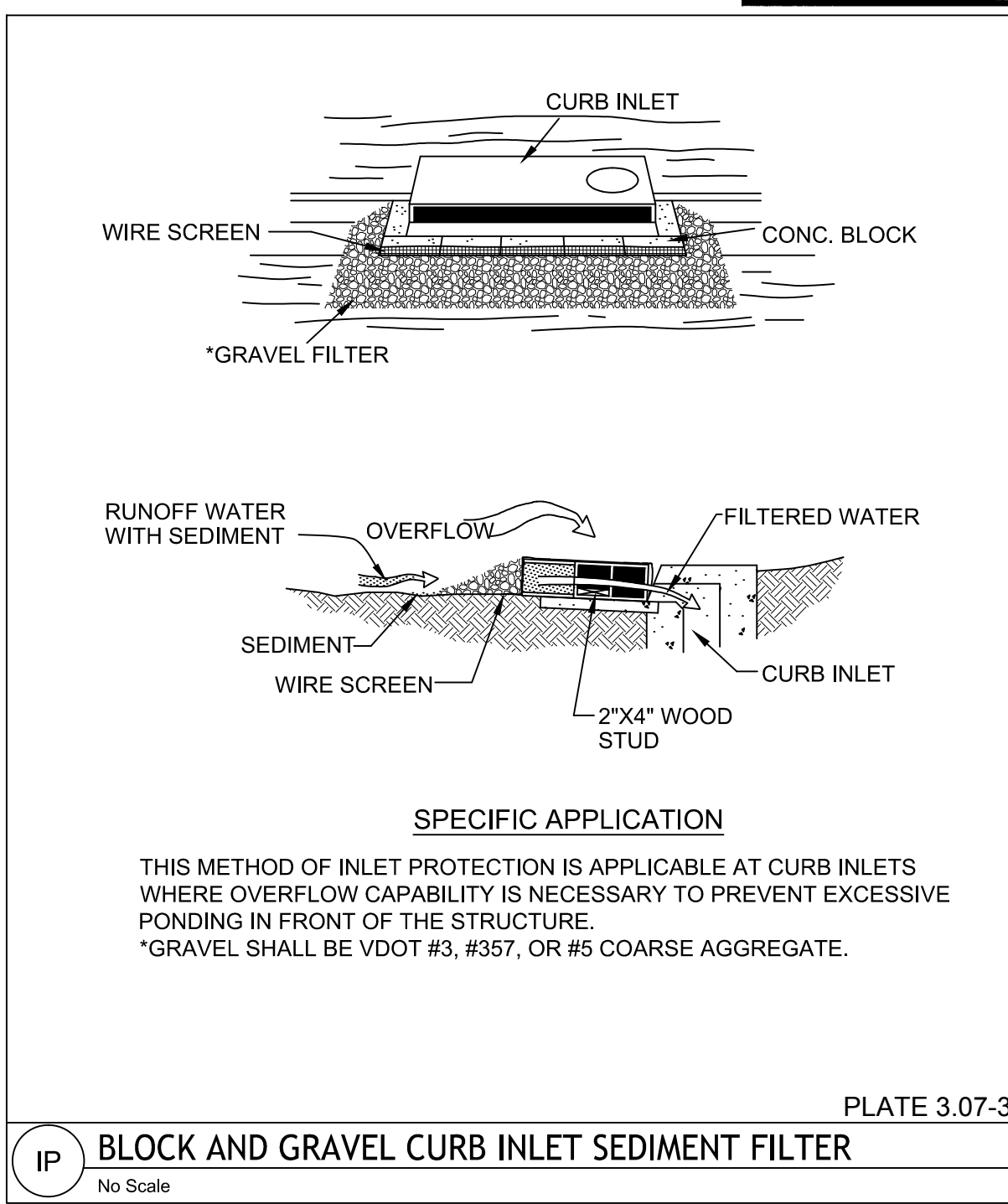
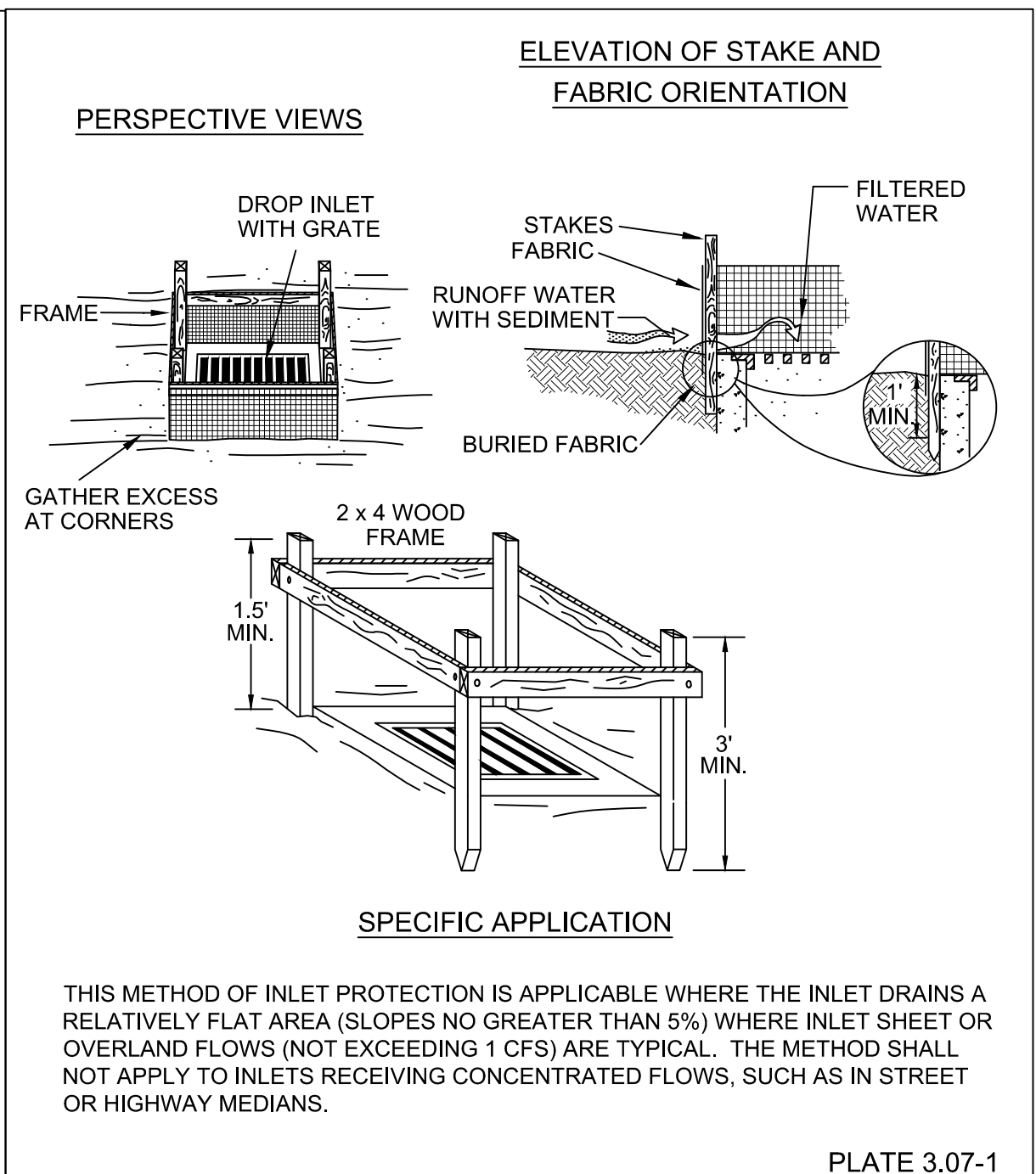
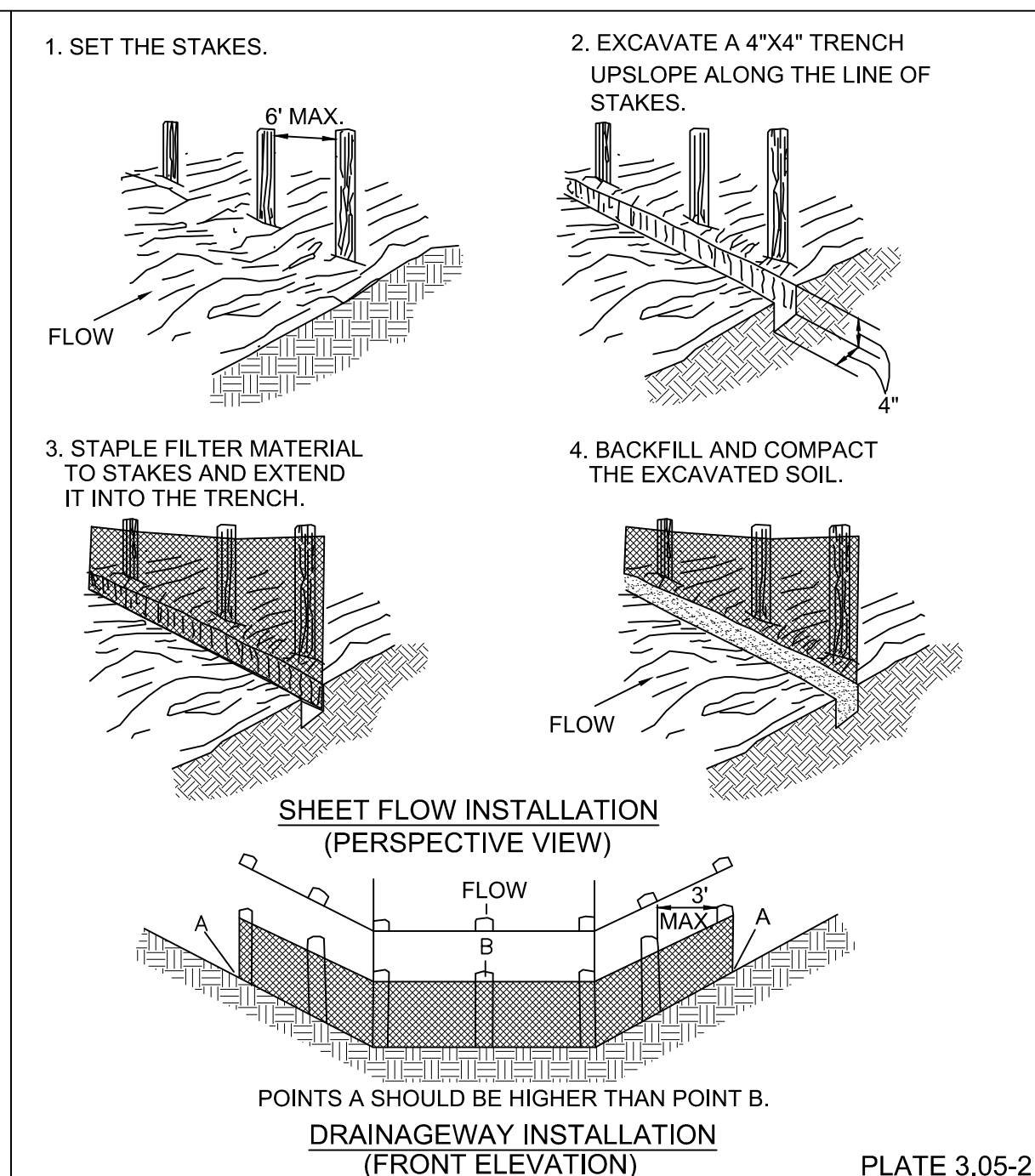
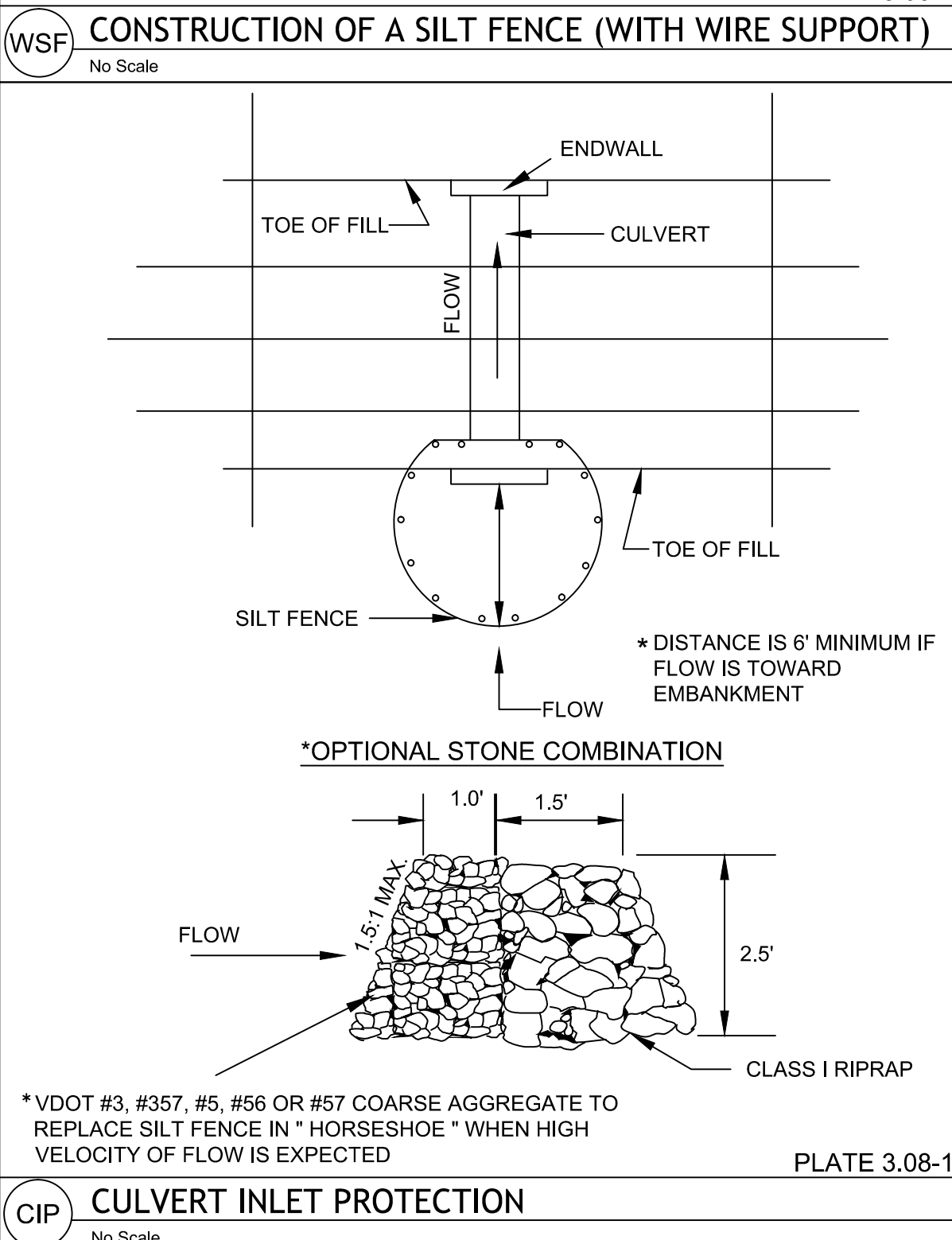
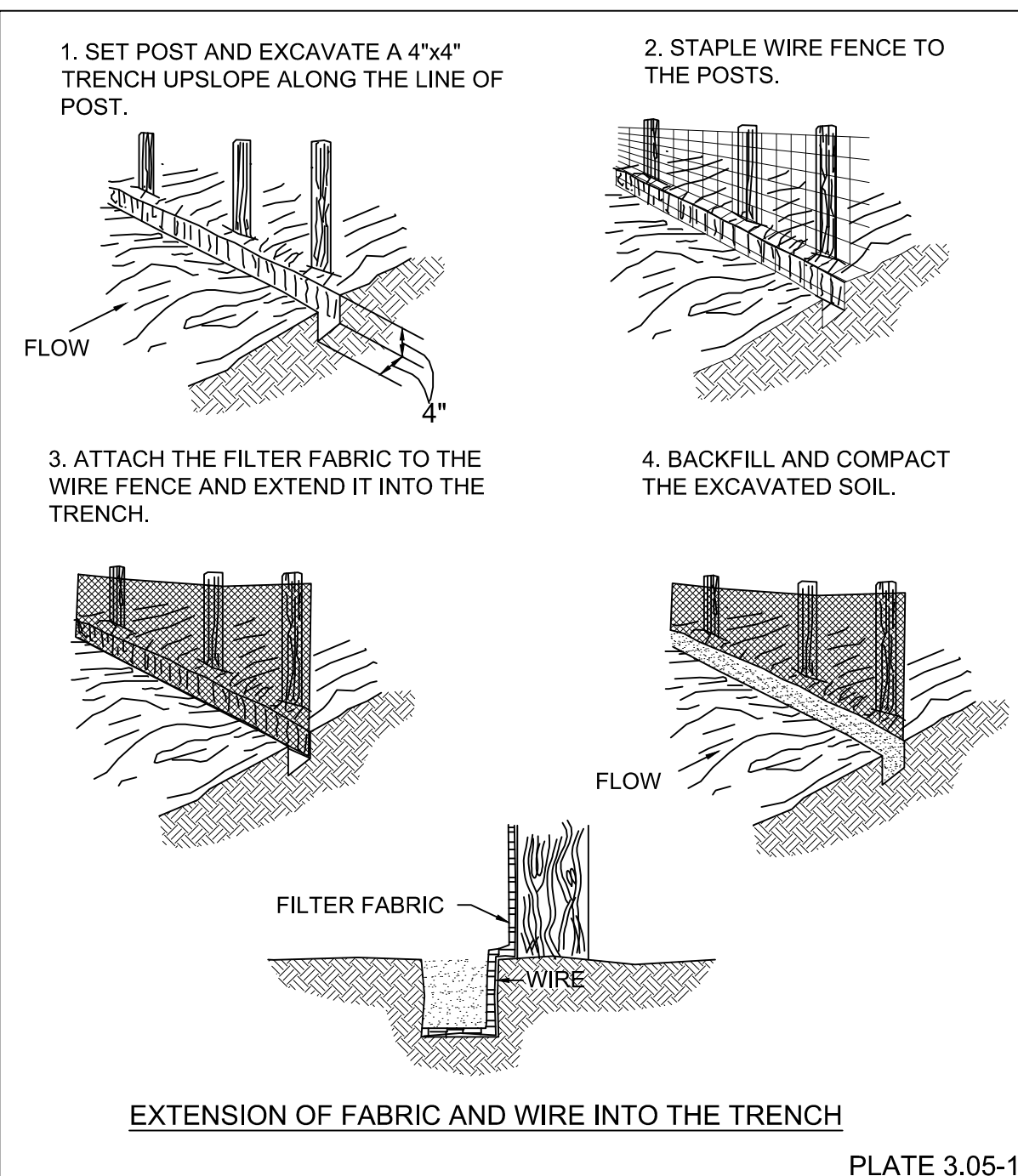


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| TABLE 3.31-B<br>(Revised June 2003)<br>TEMPORARY SEEDING SPECIFICATIONS<br>QUICK REFERENCE FOR ALL REGIONS |   |                     |
|--|---|---------------------|
| SEED   |   |                     |
| APPLICATION DATES  | SPECIES   | APPLICATION RATES   |
| Sept. 1 - Feb. 15  | 50/50 Mix of Annual Ryegrass (lolium multi-florum) & Cereal (Winter) Rye (Secale cereale) | 50 -100 (lbs/acre)  |
| Feb. 16 - Apr. 30  | Annual Ryegrass (lolium multi-florum)   | 60 - 100 (lbs/acre) |
| May 1 - Aug. 31  | German Millet   | 50 (lbs/acre)       |

| FERTILIZER & LIME   |  |  |
|---|--|--|
| <ul style="list-style-type: none"><li>Apply 10-10-10 fertilizer at a rate of 450 lbs. / acre (or 10 lbs. / 1,000 sq. ft.)</li><li>Apply Pulverized Agricultural Limestone at a rate of 2 tons/acre (or 90 lbs. / 1,000 sq. ft.)</li></ul>   |  |  |
| <b>NOTE:</b><br>1 - A soil test is necessary to determine the actual amount of lime required to adjust the soil pH of site.<br>2 - Incorporate the lime and fertilizer into the top 4 - 6 inches of the soil by disking or by other means.<br>3 - When applying Slowly Available Nitrogen, use rates available in <i>Erosion &amp; Sediment Control Technical Bulletin # 4, 2003 Nutrient Management for Development Sites</i> at <a href="http://www.dcr.state.va.us/sw/e&amp;s.htm#pubs">http://www.dcr.state.va.us/sw/e&amp;s.htm#pubs</a> |  |  |

| TABLE 3.32-E<br>(Revised June 2003)<br>PERMANENT SEEDING SPECIFICATIONS FOR COASTAL PLAIN AREA   |   |  |
|--|---|--|
| SEED <sup>1</sup>  |   |  |
| LAND USE   | SPECIES   | APPLICATION RATES  |
| Minimum Care Lawn<br>(Commercial or Residential)   | Tall Fescue <sup>1</sup><br>or<br>Bermudagrass <sup>1</sup>   | 175 - 200 lbs.   |
|  |   | 75 lbs.  |
| High-Maintenance Lawn  | Tall Fescue <sup>1</sup><br>or<br>Bermudagrass <sup>1</sup> (seed)<br>or<br>Bermudagrass <sup>1</sup> (by other vegetative establishment method, see Std. & Spec. 3.34) | 200-250 lbs.<br>40 lbs. (unhulled)<br>30 lbs. (hulled)   |
|  |   |  |
| General Slope (3:1 or less)  | Tall Fescue <sup>1</sup><br>Red Top Grass or Creeping Red Fescue<br>Seasonal Nurse Crop <sup>2</sup>  | 128 lbs.<br>2 lbs.<br>20 lbs.                            |
|  |   | TOTAL: 150 lbs.  |
| Low-Maintenance Slope<br>(Sleeper than 3:1)  | Tall Fescue <sup>1</sup><br>Bermudagrass <sup>1</sup><br>Red Top Grass or Creeping Red Fescue<br>Seasonal Nurse Crop <sup>2</sup><br>Sericea Lespedeza <sup>2</sup>     | 93-108 lbs.<br>0-15 lbs.<br>2 lbs.<br>20 lbs.<br>20 lbs. |
|  |   | TOTAL: 150 lbs.  |
| <b>NOTE:</b><br>1 - When selecting varieties of turfgrass, use the Virginia Crop Improvement Association (VCIA) recommended turfgrass variety list. Quality seed will bear a label indicating that they are approved by VCIA. A current turfgrass variety list is available at the local County Extension office or through VCIA at 804-746-4884 or at <a href="http://sudan.ces.vt.edu/html/Turf/turf/publications/publications2.html">http://sudan.ces.vt.edu/html/Turf/turf/publications/publications2.html</a><br>2 - Use seasonal nurse crop in accordance with seeding dates as stated below:<br>February, March - April ..... Annual Rye<br>May 1 <sup>st</sup> - August ..... Foxtail Millet<br>September, October - November 15 <sup>th</sup> ..... Annual Rye<br>November 16 <sup>th</sup> - January ..... Winter Rye<br>3 - May through October, use hulled seed. All other seeding periods, use unhulled seed. If Weeping Lovegrass is used, include in any slope or low maintenance mixture during warmer seeding periods, increase to 30 -40 lbs/acre. |   |  |
| FERTILIZER & LIME  |   |  |
| <ul style="list-style-type: none"><li>Apply 10-20-10 fertilizer at a rate of 500 lbs. / acre (or 12 lbs. / 1,000 sq. ft.)</li><li>Apply Pulverized Agricultural Limestone at a rate of 2 tons/acre (or 90 lbs. / 1,000 sq. ft.)</li></ul>  |   |  |
| <b>NOTE:</b><br>- A soil test is necessary to determine the actual amount of lime required to adjust the soil pH of site.<br>- Incorporate the lime and fertilizer into the top 4 - 6 inches of the soil by disking or by other means.<br>- When applying Slowly Available Nitrogen, use rates available in <i>Erosion &amp; Sediment Control Technical Bulletin # 4, 2003 Nutrient Management for Development Sites</i> at <a href="http://www.dcr.state.va.us/sw/e&amp;s.htm#pubs">http://www.dcr.state.va.us/sw/e&amp;s.htm#pubs</a>  |   |  |



COMMONWEALTH OF VIRGINIA

ELIZABETH R. SCHEESSELE

Lic. No. 043850

6-5-13

PROFESSIONAL ENGINEER

THIS DRAWING PREPARED AT THE

CORPORATE OFFICE

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DATE

6/5/2013

DRAWN BY

L. MARSH

DESIGNED BY

S. KRIEBEL

CHECKED BY

L. SCHEESSELE

SCALE

NO SCALE

TIMMONS GROUP

GREENWAY STORMWATER PARK

CITY OF NORFOLK, VA

EROSION CONTROL DETAILS

JOB NO.

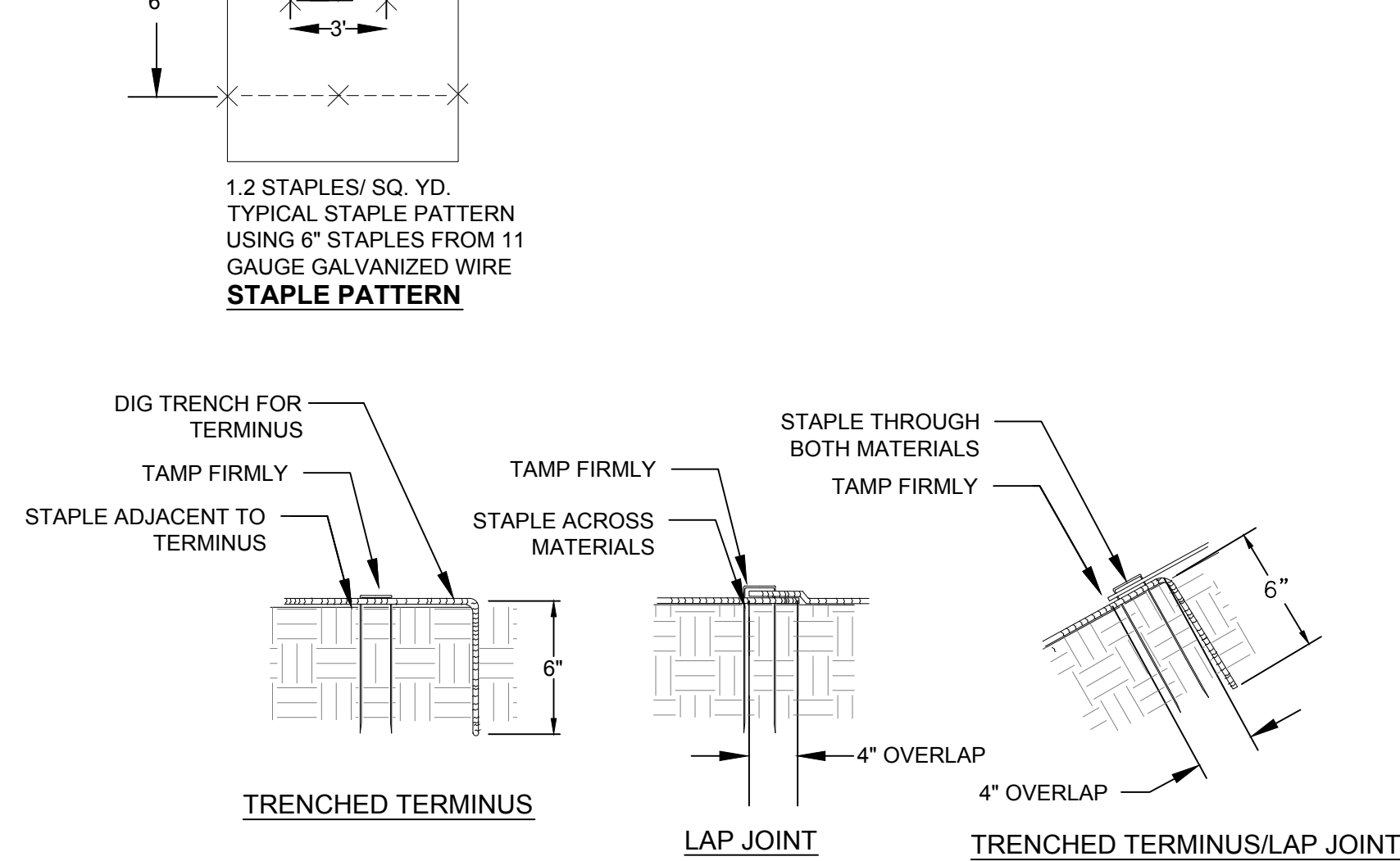
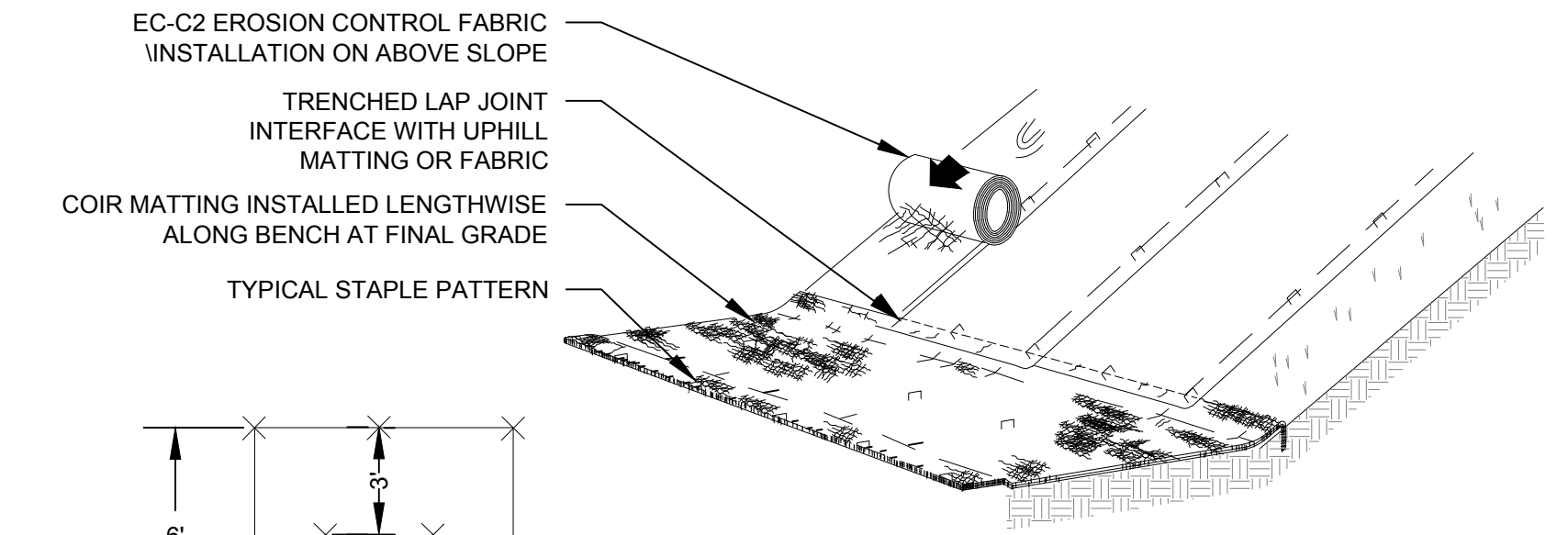
31926

SHEET NO.

C-602

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EROSION CONTROL MAT INSTALLATION  
NOT TO SCALE



Material and Performance Specification Sheet  
**ECC-2 Double Net Coconut Rolled Erosion Control Product**

**Description:** The ECC-2 is made with uniformly distributed 100% coconut fiber and two polypropylene nets securely sewn together with UV stabilized thread. The tightly compressed blankets are placed inside vented bags and include a product label, code and installation guide. The blankets are palletized for easy transportation.

The ECC-2 has functional longevity of approximately 36 months, but will vary depending on soil and climatic conditions and is suitable for slopes 1:1. The ECC-2 meets Type 4 specification requirements established by the Erosion Control Technology Council (ECTC) and Federal Highway Administration's (FHWA) FP-03 Section 713.17.

| Materials: | Netting - Top and Bottom                                       | Matrix                               | Thread                                |
|------------|--|--------------------------------------|---------------------------------------|
|            | Heavyweight UV Stabilized Polypropylene<br>.75" x .75" Opening | 100% Coconut Fiber<br>0.55 lbs/sq yd | UV Stabilized<br>1.50" stitch spacing |

| Roll Sizes:                                     | Standards                                  |
|---|--|
| Width: 7.5 ft (2.3 m)                           | 7.5 ft (2.3 m)                             |
| Length: 96.0 ft (29.3 m)                        | 120.0 ft (36.6 m)                          |
| Weight ±10%: 48.0 lbs(20.4 kg)                  | 60.0 lbs (27.2 kg)                         |
| Area: 80 yd <sup>2</sup> (66.9 m <sup>2</sup> ) | 100 yd <sup>2</sup> (83.6 m <sup>2</sup> ) |
| #/Pallet: 20                                    | 16   |

| Index Value Properties*: | Test Method     | Typical                 |
|--------------------------|-----------------|-------------------------|
| Mass/Unit Area           | ASTM D6475      | 9.45 oz/yd <sup>2</sup> |
| Thickness                | ASTM D5199      | .23 in                  |
| Tensile Strength-MD      | ASTM D5035      | 270 lb/ft               |
| Elongation-MD            | ASTM D5035      | .38 %                   |
| Tensile Strength-TD      | ASTM D5035      | 170 lb/ft               |
| Elongation-TD            | ASTM D5035      | .30 %                   |
| Light Penetration        | ECTC Guidelines | 14 %                    |
| Water Absorption         | ASTM D1117      | 233 %                   |

| Design Values:                   | Value                   |
|----------------------------------|-------------------------|
| Manning's N                      | .015                    |
| RUSLE C-Factor                   | .09                     |
| Maximum Permissible Sheer Stress | 3.2 psf (154 Pa)        |
| Maximum Flow Velocity            | 7.0 ft/sec (2.13 m/sec) |

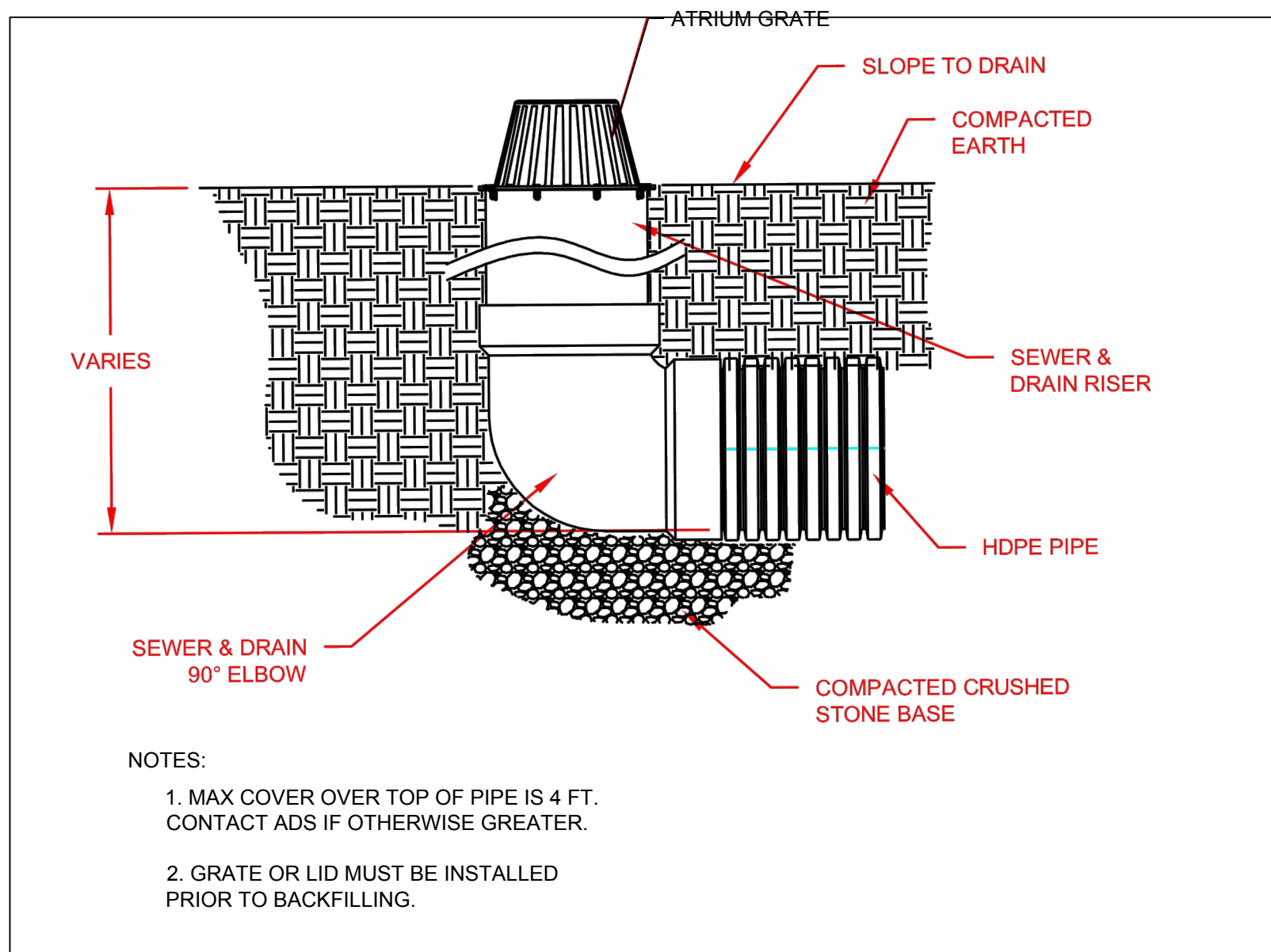
| Bench-Scale Testing* (NTPEP): | Test Method      | Parameters                             | Results          |
|-------------------------------|------------------|--|------------------|
| ECTC Method 2                 | Rainfall         | 50mm (2in) / hr-30 min                 | SLR**=8.00       |
|                               |                  | 100mm (4in) / hr-30 min                | SLR**=11.71      |
|                               |                  | 150mm (6in) / hr-30 min                | SLR**=17.41      |
| ECTC Method 3                 | Shear Resistance | Shear at .50 in soil loss              | 2.99 lb/ft       |
| ECTC Method 4                 | Germination      | Top soil; Fescue;<br>21 day incubation | 755% improvement |

**Distributed by:**  
Pinelands Nursery & Supply  
323 Island Road  
Columbus, NJ 08022  
Telephone: 609-291-9486  
Fax: 609-298-8939  
www.pinelandsnursery.com

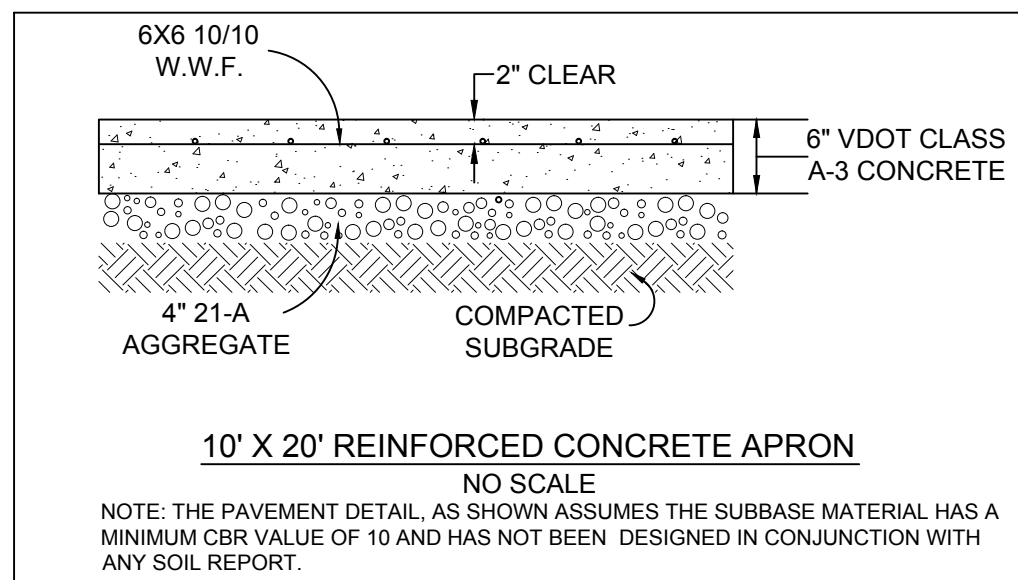


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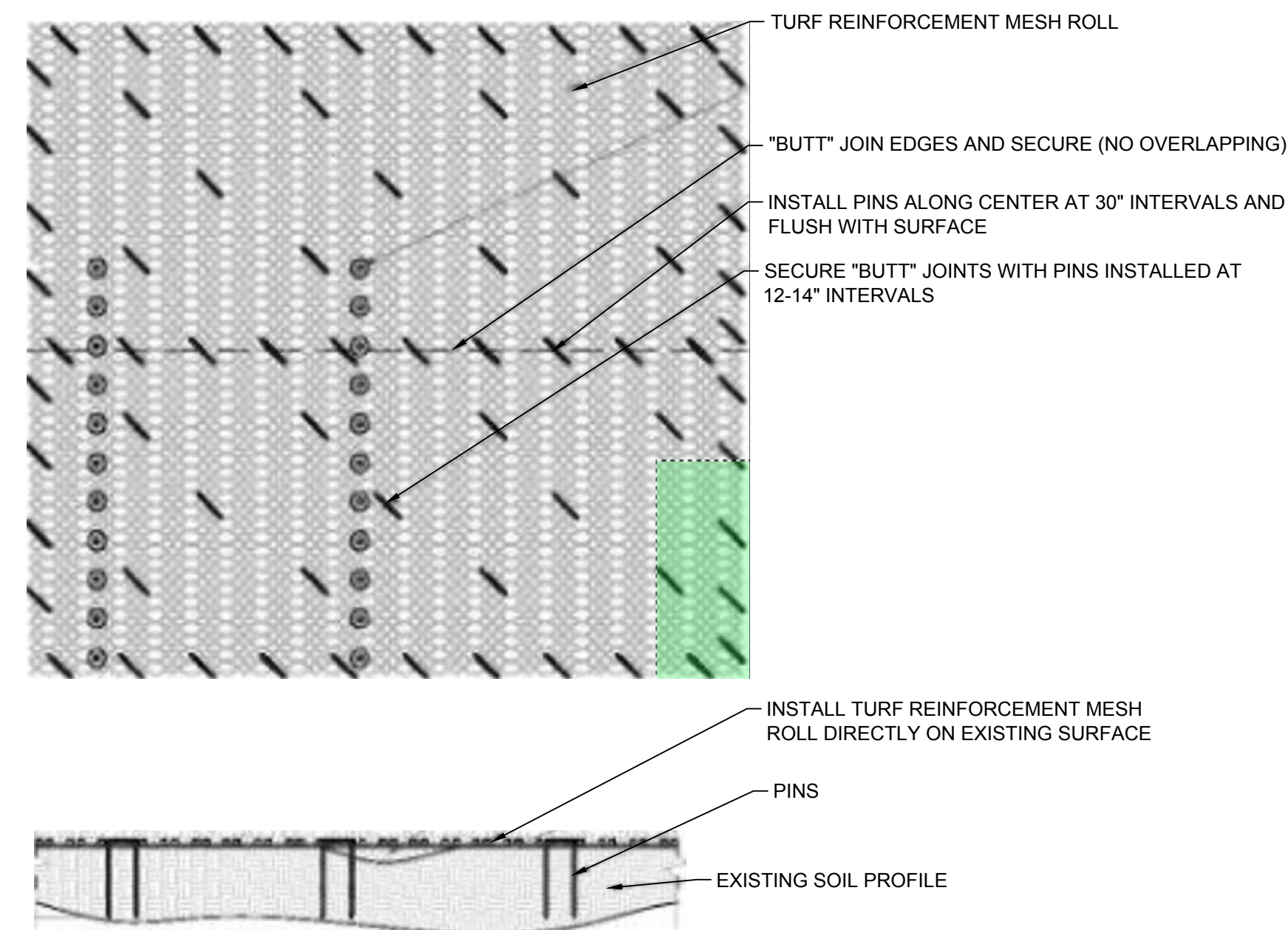
Revised 4/1/07 Supersedes all previous versions



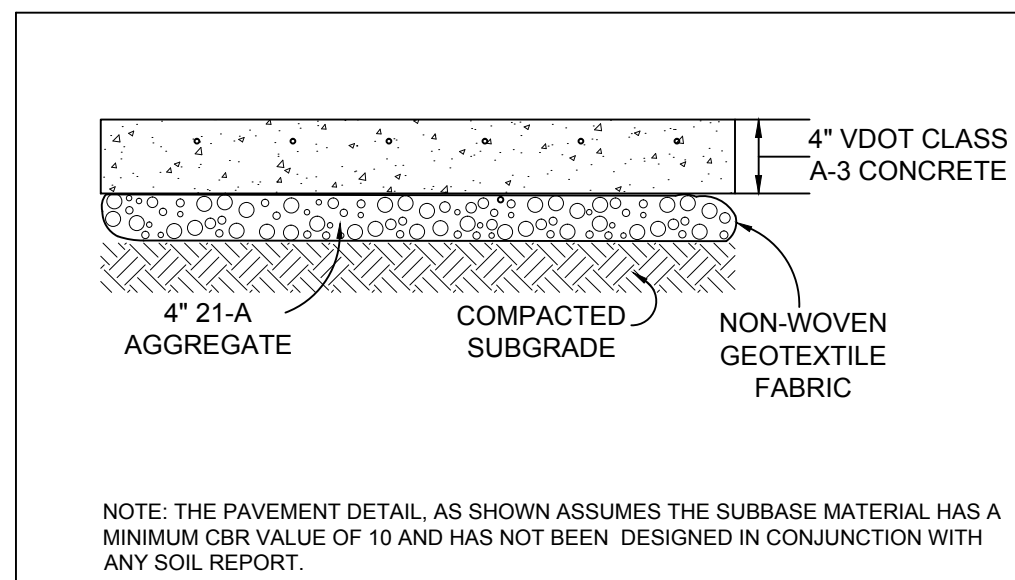
SEWER AND DRAIN ELBOW/TEE W/CORR. PIPE AND ATRIUM GR.  
NOT TO SCALE



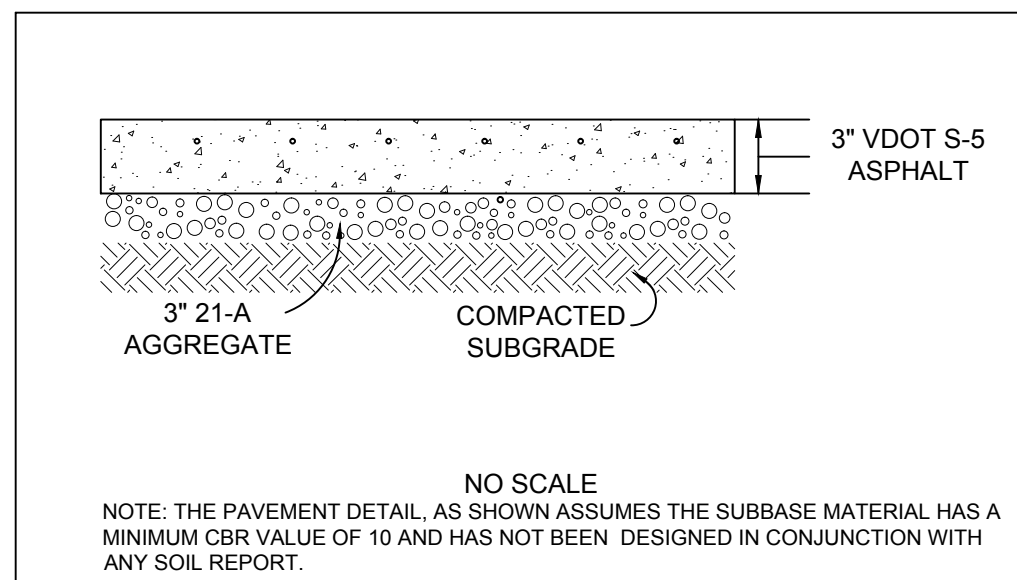
10' X 20' REINFORCED CONCRETE APRON  
NOT TO SCALE



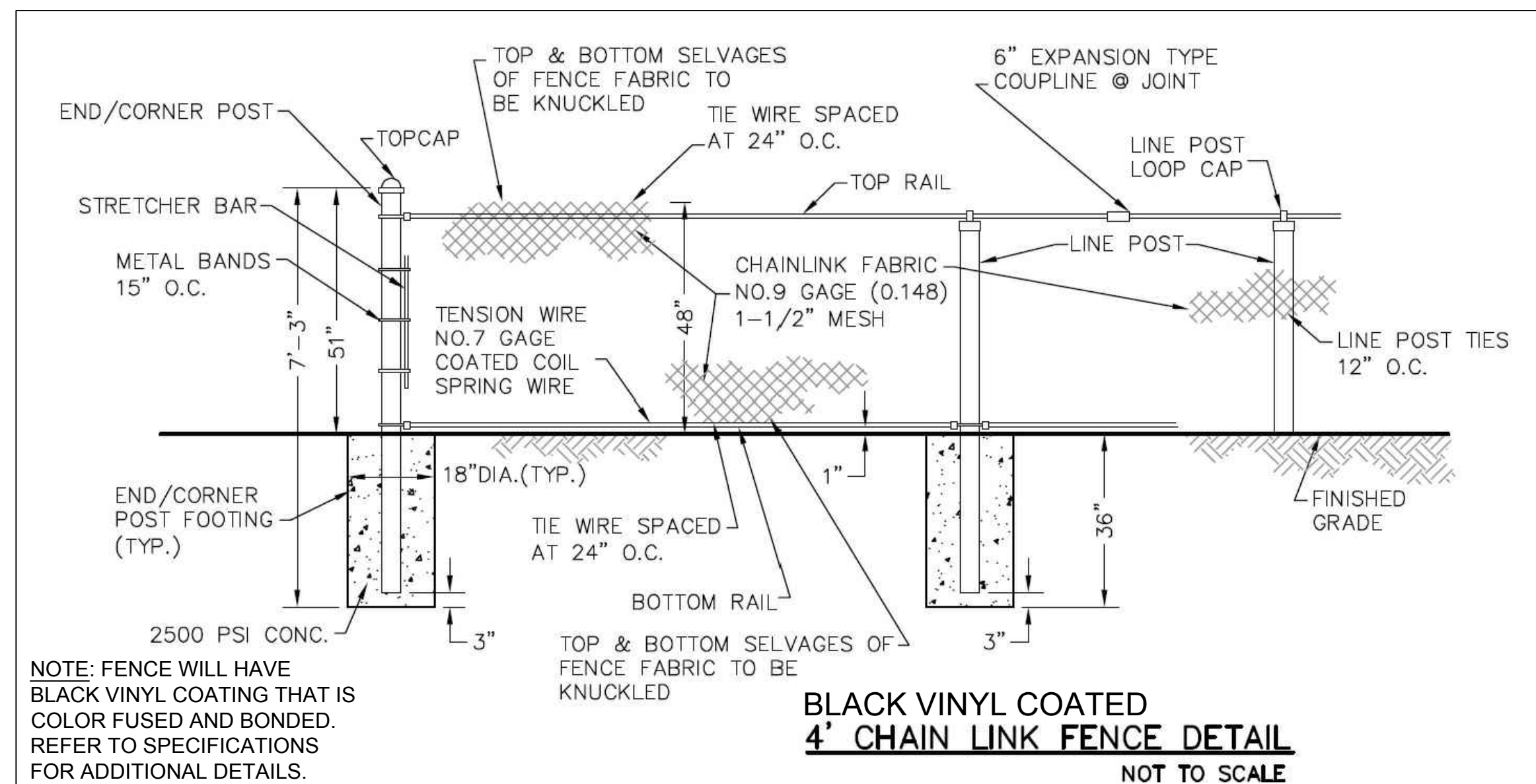
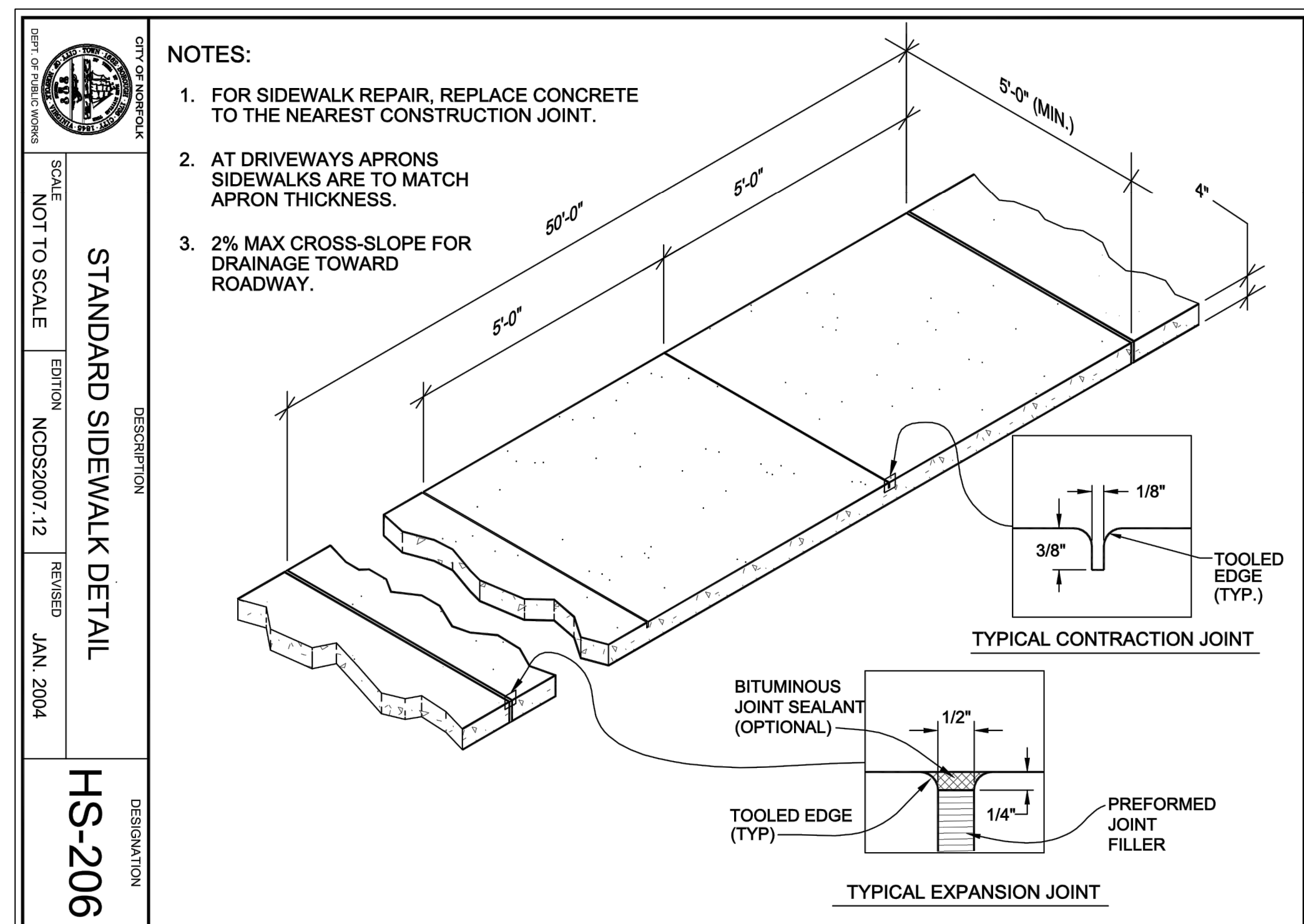
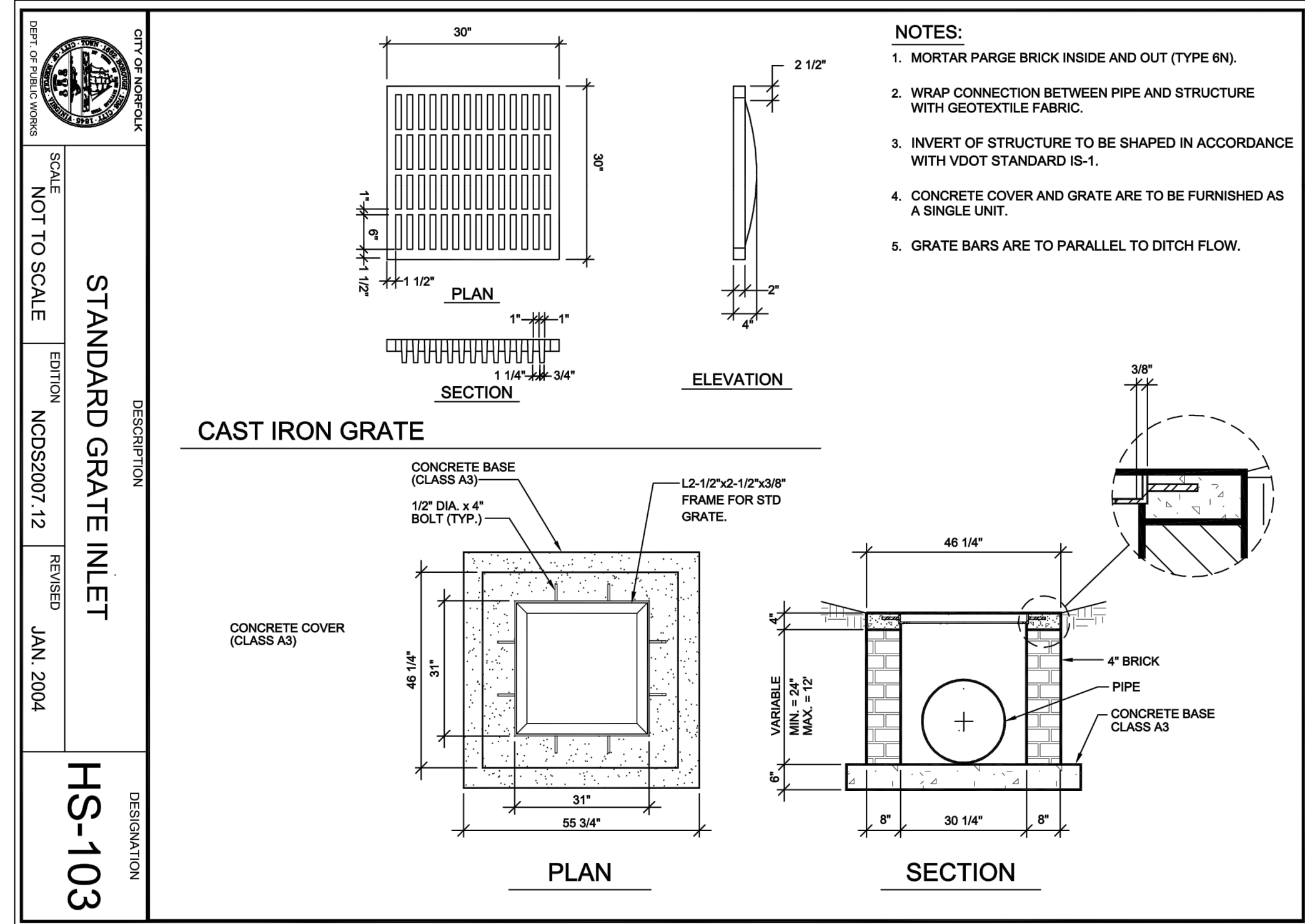
TURF REINFORCEMENT MESH  
NOT TO SCALE



CONCRETE SIDEWALK DETAIL  
NOT TO SCALE

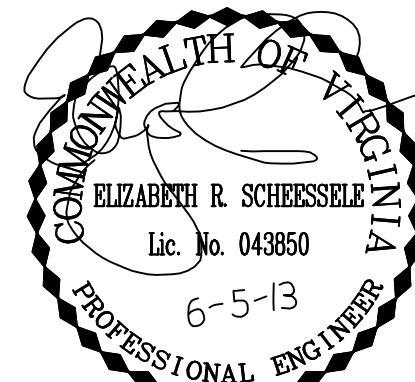


ASPHALT CONCRETE SIDEWALK  
NOT TO SCALE



NOTE: FENCE WILL HAVE BLACK VINYL COATING THAT IS COLOR FUSED AND BONDED. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILS.

BLACK VINYL COATED  
4' CHAIN LINK FENCE DETAIL  
NOT TO SCALE



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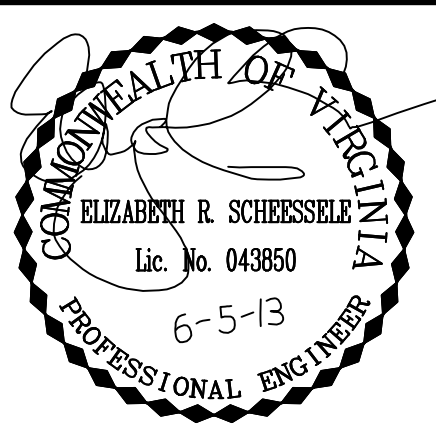
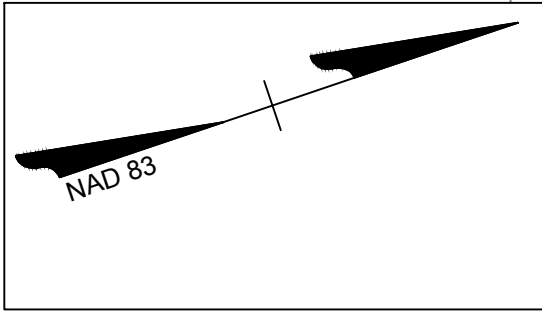
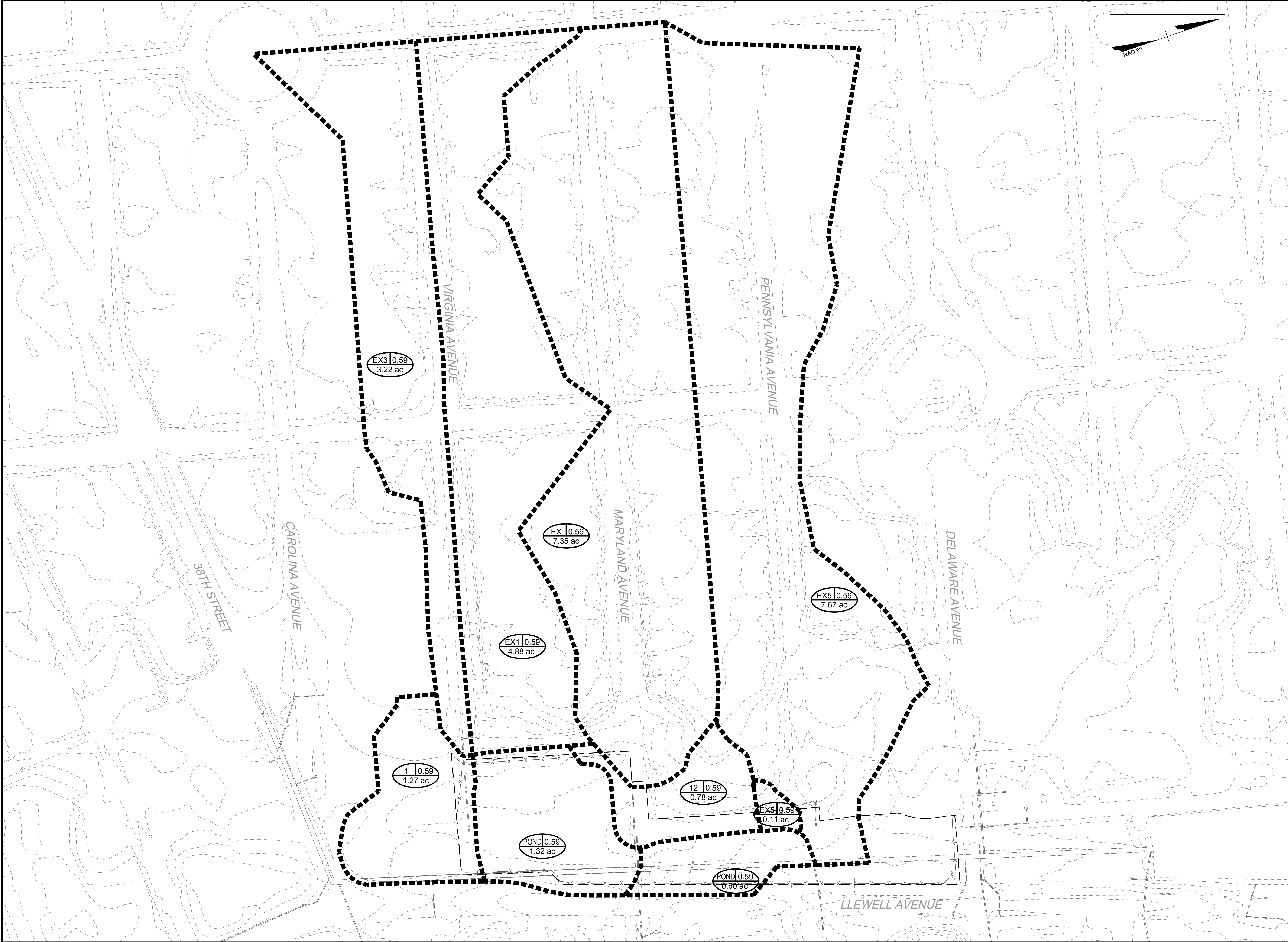
DATE  
6/5/2013  
DRAWN BY  
L. MARSH  
DESIGNED BY  
S. KRIEBEL  
CHECKED BY  
L. SCHEESSELE  
SCALE  
NO SCALE

**TIMMONS GROUP**  
GREENWAY STORMWATER PARK  
CITY OF NORFOLK, VA  
EROSION CONTROL & GENERAL DETAILS  
JOB NO.  
**31926**  
SHEET NO.  
**C-603**

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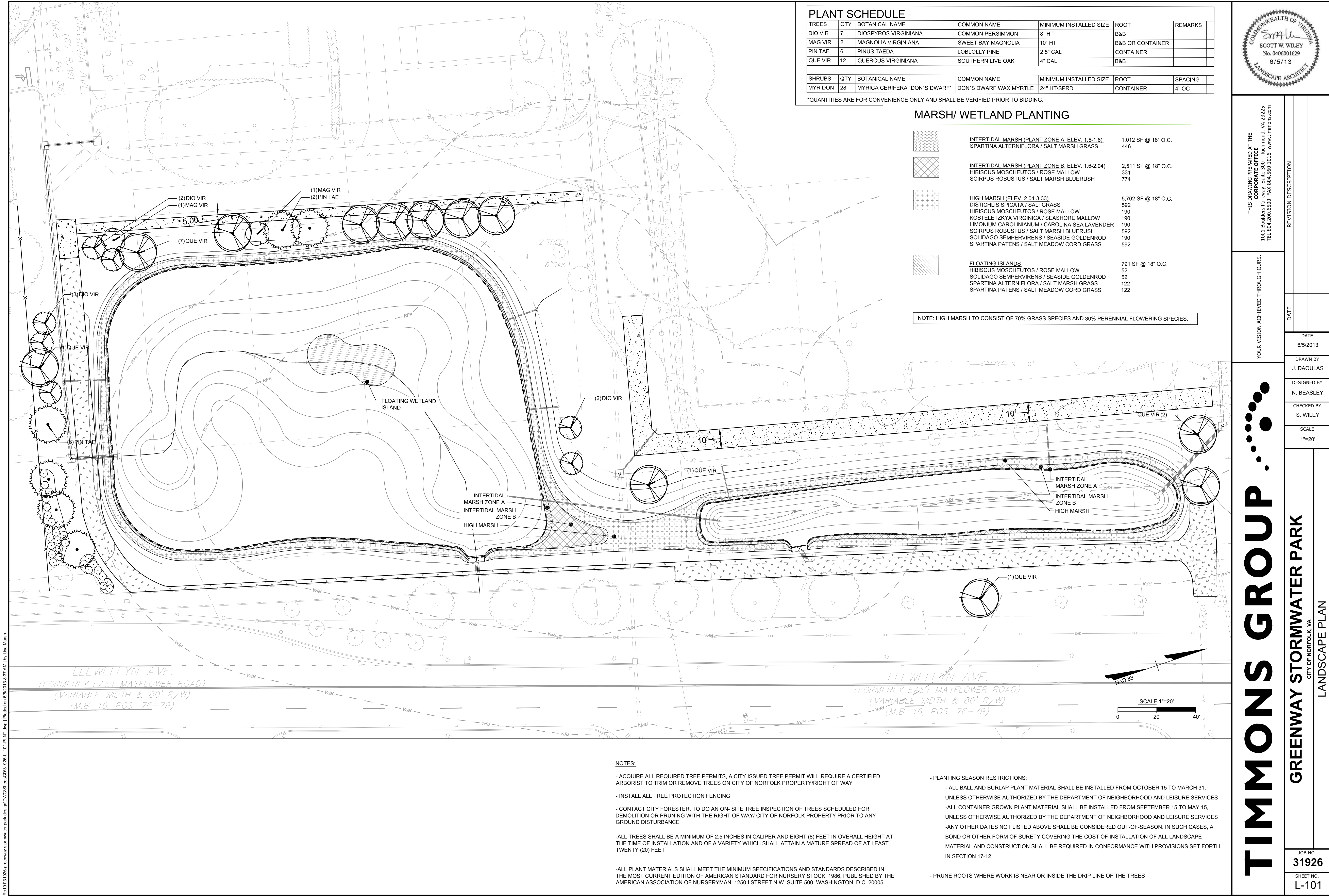
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|   |                                    |      |      |          |             |            |       |                         |                           |
|---|------------------------------------|------|------|----------|-------------|------------|-------|-------------------------|---------------------------|
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|   |                                    |      |      |          |             |            |       |                         |                           |
| <b>TIMMONS GROUP</b>  |                                    |      |      |          |             |            |       |                         |                           |
| <b>GREENWAY STORMWATER PARK</b>   |                                    |      |      |          |             |            |       |                         |                           |
| CITY OF NORFOLK, VA   |                                    |      |      |          |             |            |       |                         |                           |
| <b>HYDROLOGY AND HYDRAULICS PLAN</b>  |                                    |      |      |          |             |            |       |                         |                           |

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PLANT SCHEDULE

| TREES   | QTY | BOTANICAL NAME                | COMMON NAME            | MINIMUM INSTALLED SIZE | ROOT             | REMARKS |
|---------|-----|-------------------------------|------------------------|------------------------|------------------|---------|
| DIO VIR | 7   | DIOSPYROS VIRGINIANA          | COMMON PERSIMMON       | 8' HT                  | B&B              |         |
| MAG VIR | 2   | MAGNOLIA VIRGINIANA           | SWEET BAY MAGNOLIA     | 10' HT                 | B&B OR CONTAINER |         |
| PIN TAE | 6   | PINUS TAEDA                   | LOBLOLLY PINE          | 2.5' CAL               | CONTAINER        |         |
| QUE VIR | 12  | QUERCUS VIRGINIANA            | SOUTHERN LIVE OAK      | 4" CAL                 | B&B              |         |
| SHRUBS  | QTY | BOTANICAL NAME                | COMMON NAME            | MINIMUM INSTALLED SIZE | ROOT             | SPACING |
| MYR DON | 28  | MYRICA CERIFERA 'DON'S DWARF' | DON'S DWARF WAX MYRTLE | 24" HT/SPRD            | CONTAINER        | 4' OC   |

\*QUANTITIES ARE FOR CONVENIENCE ONLY AND SHALL BE VERIFIED PRIOR TO BIDDING.

MARSH/ WETLAND PLANTING

|  |   |  |
|--|---|--|
|  | INTERTIDAL MARSH (PLANT ZONE A: ELEV. 1.5-1.6)<br>SPARTINA ALTERNIFLORA / SALT MARSH GRASS  | 1,012 SF @ 18" O.C.<br>446   |
|  | INTERTIDAL MARSH (PLANT ZONE B: ELEV. 1.6-2.04)<br>HIBISCUS MOSCHEUTOS / ROSE MALLOW<br>SCIRPUS ROBUSTUS / SALT MARSH BLUERUSH  | 2,511 SF @ 18" O.C.<br>331<br>774                                    |
|  | HIGH MARSH (ELEV. 2.04-3.33)<br>DISTICHLIS SPICATA / SALTGRASS<br>HIBISCUS MOSCHEUTOS / ROSE MALLOW<br>KOSTELETZKYA VIRGINICA / SEASHORE MALLOW<br>LIMONIUM CAROLINIANUM / CAROLINA SEA LAVENDER<br>SCIRPUS ROBUSTUS / SALT MARSH BLUERUSH<br>SOLIDAGO SEMPERVIRENS / SEASIDE GOLDENROD<br>SPARTINA PATENS / SALT MEADOW CORD GRASS | 5,762 SF @ 18" O.C.<br>592<br>190<br>190<br>190<br>592<br>190<br>592 |
|  | FLOATING ISLANDS<br>HIBISCUS MOSCHEUTOS / ROSE MALLOW<br>SOLIDAGO SEMPERVIRENS / SEASIDE GOLDENROD<br>SPARTINA ALTERNIFLORA / SALT MARSH GRASS<br>SPARTINA PATENS / SALT MEADOW CORD GRASS  | 791 SF @ 18" O.C.<br>52<br>52<br>122<br>122                          |

NOTE: HIGH MARSH TO CONSIST OF 70% GRASS SPECIES AND 30% PERENNIAL FLOWERING SPECIES.

NOTES:

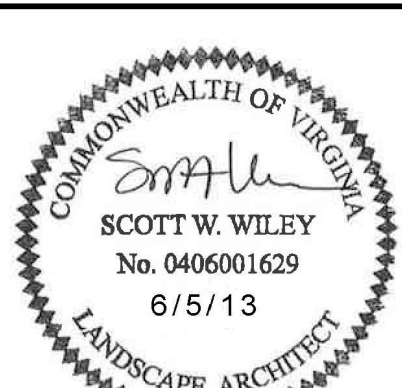
- ACQUIRE ALL REQUIRED TREE PERMITS. A CITY ISSUED TREE PERMIT WILL REQUIRE A CERTIFIED ARBORIST TO TRIM OR REMOVE TREES ON CITY OF NORFOLK PROPERTY/RIGHT OF WAY
- INSTALL ALL TREE PROTECTION FENCING
- CONTACT CITY FORESTER, TO DO AN ON- SITE TREE INSPECTION OF TREES SCHEDULED FOR DEMOLITION OR PRUNING WITH THE RIGHT OF WAY/ CITY OF NORFOLK PROPERTY PRIOR TO ANY GROUND DISTURBANCE
- ALL TREES SHALL BE A MINIMUM OF 2.5 INCHES IN CALIPER AND EIGHT (8) FEET IN OVERALL HEIGHT AT THE TIME OF INSTALLATION AND OF A VARIETY WHICH SHALL ATTAIN A MATURE SPREAD OF AT LEAST TWENTY (20) FEET

-ALL PLANT MATERIALS SHALL MEET THE MINIMUM SPECIFICATIONS AND STANDARDS DESCRIBED IN THE MOST CURRENT EDITION OF AMERICAN STANDARD FOR NURSERY STOCK, 1986, PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMAN, 1250 I STREET N.W. SUITE 500, WASHINGTON, D.C. 20005

- PLANTING SEASON RESTRICTIONS:

- ALL BALL AND BURLAP PLANT MATERIAL SHALL BE INSTALLED FROM OCTOBER 15 TO MARCH 31, UNLESS OTHERWISE AUTHORIZED BY THE DEPARTMENT OF NEIGHBORHOOD AND LEISURE SERVICES
- ALL CONTAINER GROWN PLANT MATERIAL SHALL BE INSTALLED FROM SEPTEMBER 15 TO MAY 15, UNLESS OTHERWISE AUTHORIZED BY THE DEPARTMENT OF NEIGHBORHOOD AND LEISURE SERVICES
- ANY OTHER DATES NOT LISTED ABOVE SHALL BE CONSIDERED OUT-OF-SEASON. IN SUCH CASES, A BOND OR OTHER FORM OF SURETY COVERING THE COST OF INSTALLATION OF ALL LANDSCAPE MATERIAL AND CONSTRUCTION SHALL BE REQUIRED IN CONFORMANCE WITH PROVISIONS SET FORTH IN SECTION 17-12

- PRUNE ROOTS WHERE WORK IS NEAR OR INSIDE THE DRIP LINE OF THE TREES



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|                      | 6/5/2013 |

DRAWN BY  
J. DAOULAS

DESIGNED BY  
N. BEASLEY

CHECKED BY  
S. WILEY

SCALE  
1"=20'

**TIMMONS GROUP**

**GREENWAY STORMWATER PARK**

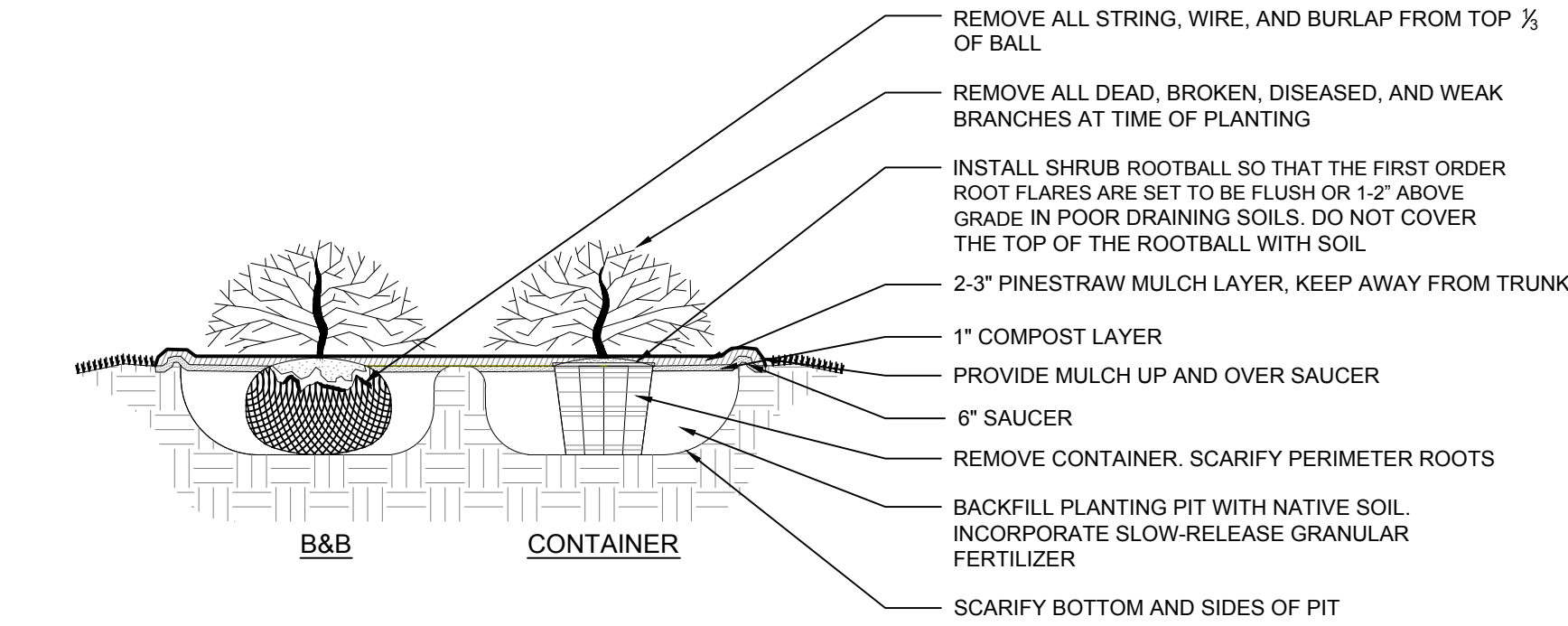
CITY OF NORFOLK, VA  
**LANDSCAPE PLAN**

JOB NO.  
**31926**  
SHEET NO.  
**L-101**

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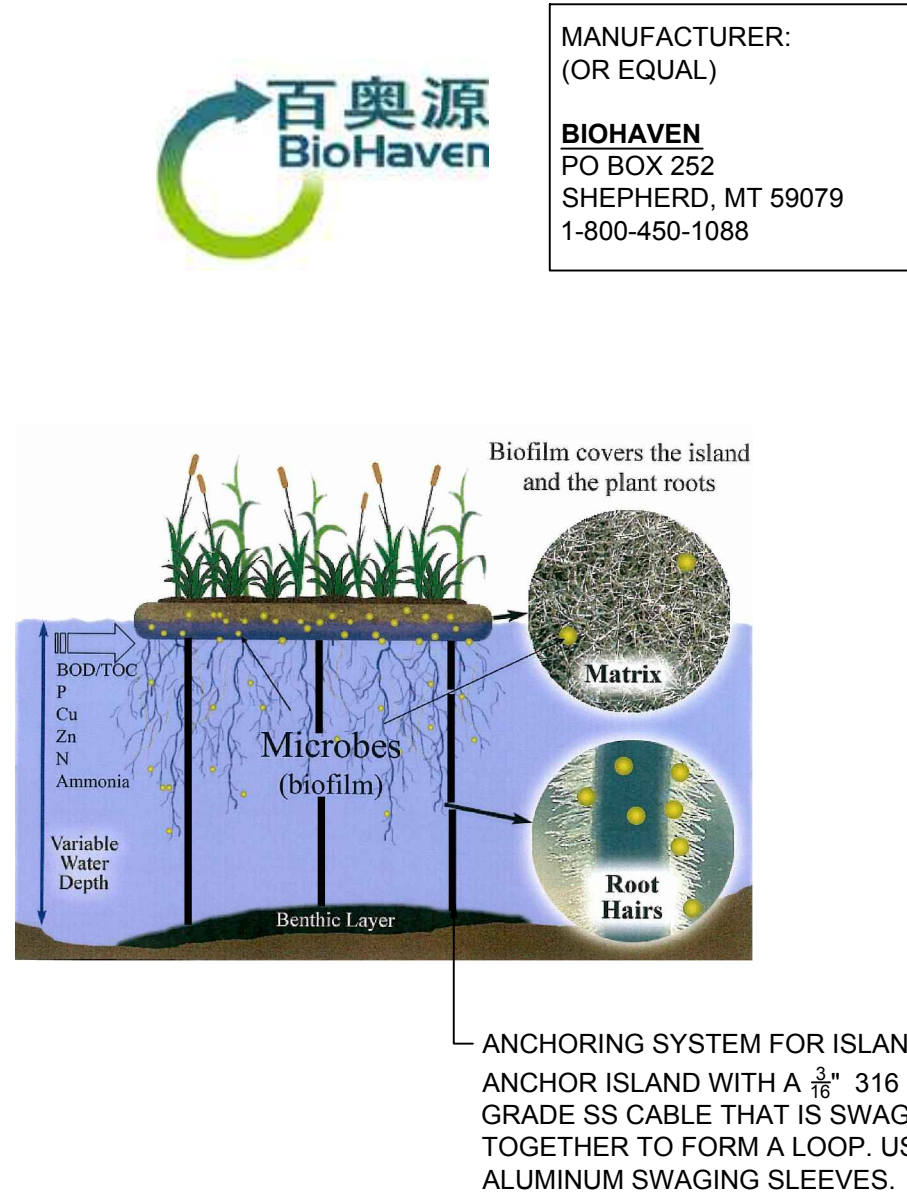


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### SHRUB PLANTING SECTION

NOT TO SCALE



### FLOATING ISLAND

NOT TO SCALE

### GENERAL NOTES

#### PRE-CONSTRUCTION

- CONTRACTOR IS RESPONSIBLE FOR CONTACTING "MISS UTILITY" AT 1.800.552.7001 FOR LOCATION OF ALL UTILITY LINES. TREES SHALL BE LOCATED A MINIMUM OF 5 FEET FROM SEWER/WATER CONNECTIONS. NOTIFY LANDSCAPE ARCHITECT OF CONFLICTS.
- VERIFY ALL PLANT MATERIAL QUANTITIES ON THE PLAN PRIOR TO BIDDING. PLANT LIST TOTALS ARE FOR CONVENIENCE ONLY AND SHALL BE VERIFIED PRIOR TO BIDDING.
- PROVIDE PLANT MATERIALS OF QUANTITY, SIZE, GENUS, SPECIES, AND VARIETY INDICATED ON PLANS. ALL PLANT MATERIALS AND INSTALLATION SHALL COMPLY WITH RECOMMENDATIONS AND REQUIREMENTS OF ANSI Z60.1 "AMERICAN STANDARD FOR NURSERY STOCK". IF SPECIFIED PLANT MATERIAL IS NOT OBTAINABLE, SUBMIT PROOF OF NON AVAILABILITY TO THE ARCHITECTS, TOGETHER WITH PROPOSAL FOR USE OF EQUIVALENT MATERIAL.
- PROVIDE AND INSTALL ALL PLANTS AS IN ACCORDANCE WITH DETAILS AND CONTRACT SPECIFICATIONS.

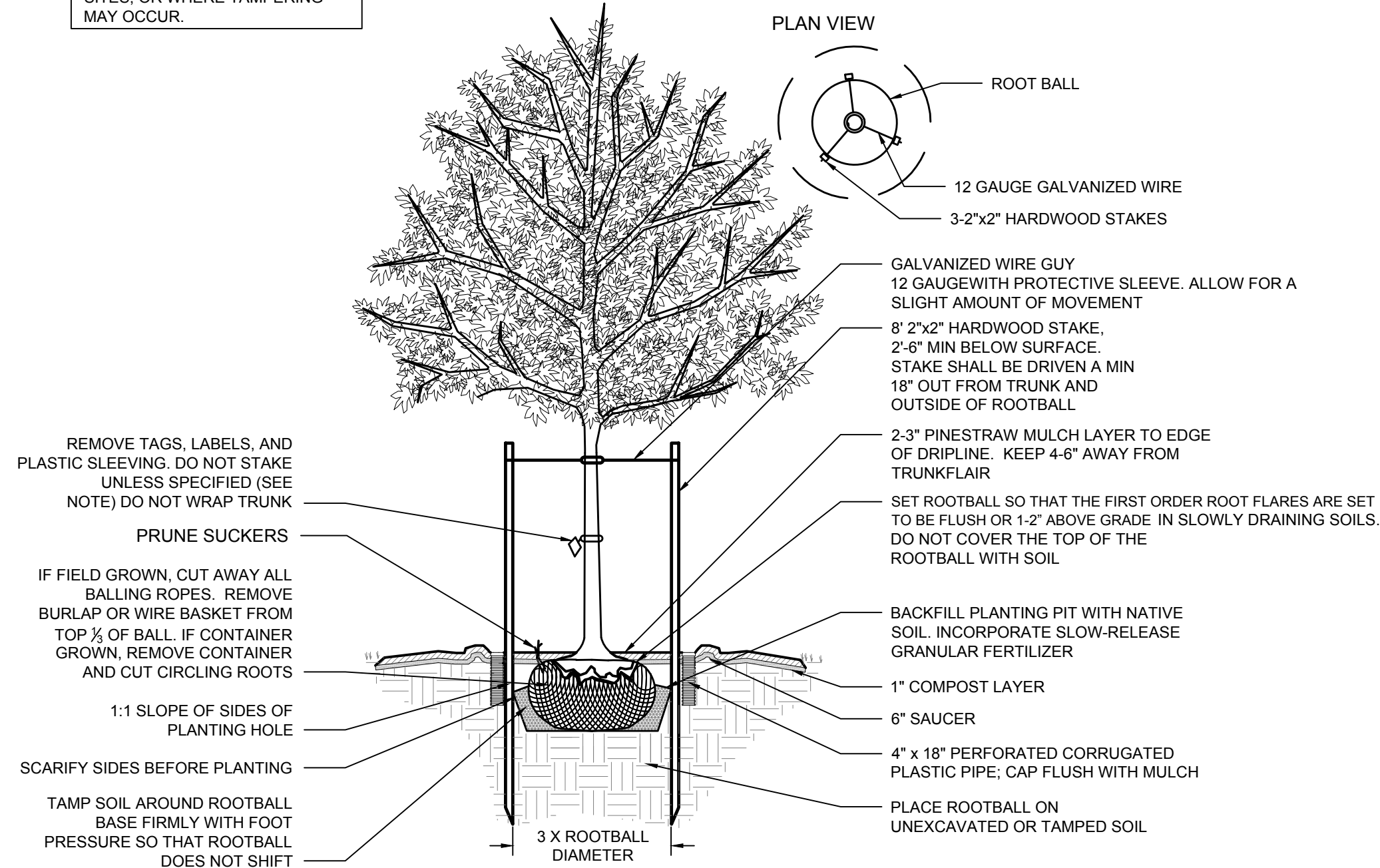
#### CONSTRUCTION/INSTALLATION

- LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY PLANTS AND MATERIALS THAT ARE IN AN UNHEALTHY OR UNSIGHTLY CONDITION, AS WELL AS PLANTS AND MATERIALS THAT DO NOT CONFORM TO ANSI Z60.1 "AMERICAN STANDARD FOR NURSERY STOCK".
- LABEL AT LEAST ONE TREE AND ONE SHRUB OF EACH VARIETY AND CALIPER WITH A SECURELY ATTACHED, WATERPROOF TAG BEARING THE DESIGNATION OF BOTANICAL AND COMMON NAME.
- INSTALL LANDSCAPE PLANTINGS AT ENTRANCES/EXITS AND PARKING AREAS ACCORDING TO PLANS SO THAT MATERIALS WILL NOT INTERFERE WITH SIGHT DISTANCES.
- CONTRACTOR IS RESPONSIBLE FOR WATERING ALL PLANT MATERIAL DURING INSTALLATION AND UNTIL FINAL INSPECTION AND ACCEPTANCE BY OWNER. CONTRACTOR SHALL NOTIFY OWNER OF CONDITIONS WHICH AFFECTS THE GUARANTEE.

#### INSPECTIONS/GUARANTEE

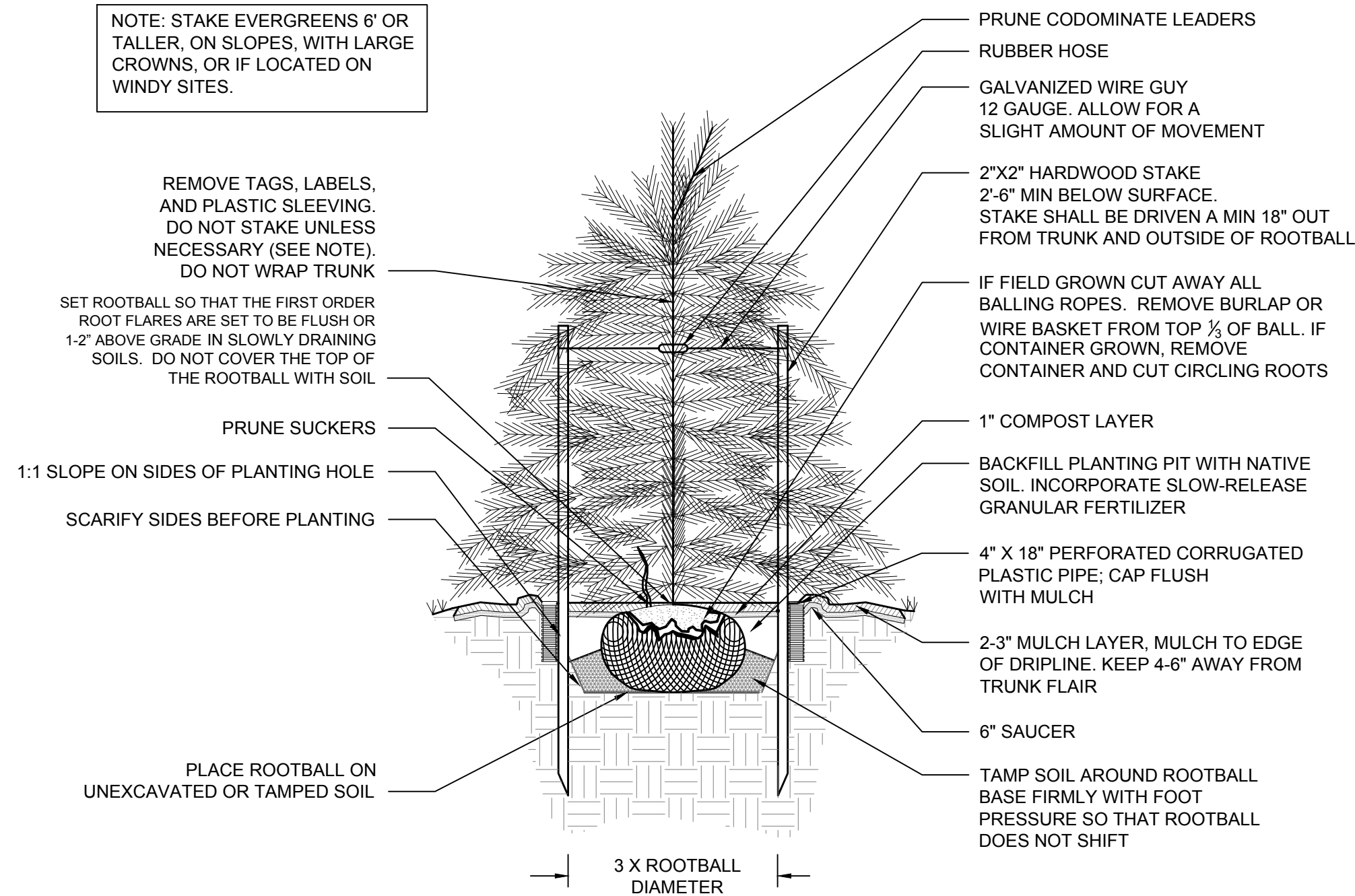
- UPON COMPLETION OF LANDSCAPE INSTALLATION, THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR WHO WILL VERIFY COMPLETENESS, INCLUDING THE REPLACEMENT OF ALL DEAD PLANT MATERIAL. CONTRACTOR IS RESPONSIBLE FOR SCHEDULING A FINAL INSPECTION BY THE LANDSCAPE ARCHITECT.
- ALL EXTERIOR PLANT MATERIALS SHALL BE GUARANTEED FOR ONE FULL YEAR AFTER DATE OF FINAL INSPECTION AGAINST DEFECTS INCLUDING DEATH AND UNSATISFACTORY GROWTH. DEFECTS RESULTING FROM NEGLIGENCE BY THE OWNER, ABUSE OR DAMAGE BY OTHERS, OR UNUSUAL PHENOMENA OR INCIDENTS WHICH ARE BEYOND THE CONTRACTORS CONTROL ARE NOT THE RESPONSIBILITY OF THE CONTRACTOR.
- PLANT MATERIAL QUANTITIES AND SIZES WILL BE INSPECTED FOR COMPLIANCE WITH APPROVED PLANS BY A SITE PLAN REVIEW AGENT OF THE PLANNING DEPARTMENT PRIOR TO THE RELEASE OF THE CERTIFICATE OF OCCUPANCY.
- REMOVE ALL GUY WIRES AND STAKES 12 MONTHS AFTER INSTALLATION.

NOTE: ONLY STAKE TREES WITH LARGE CROWNS, 2" CALIPER OR GREATER, IF LOCATED ON WINDY SITES, OR WHERE TAMPERING MAY OCCUR.



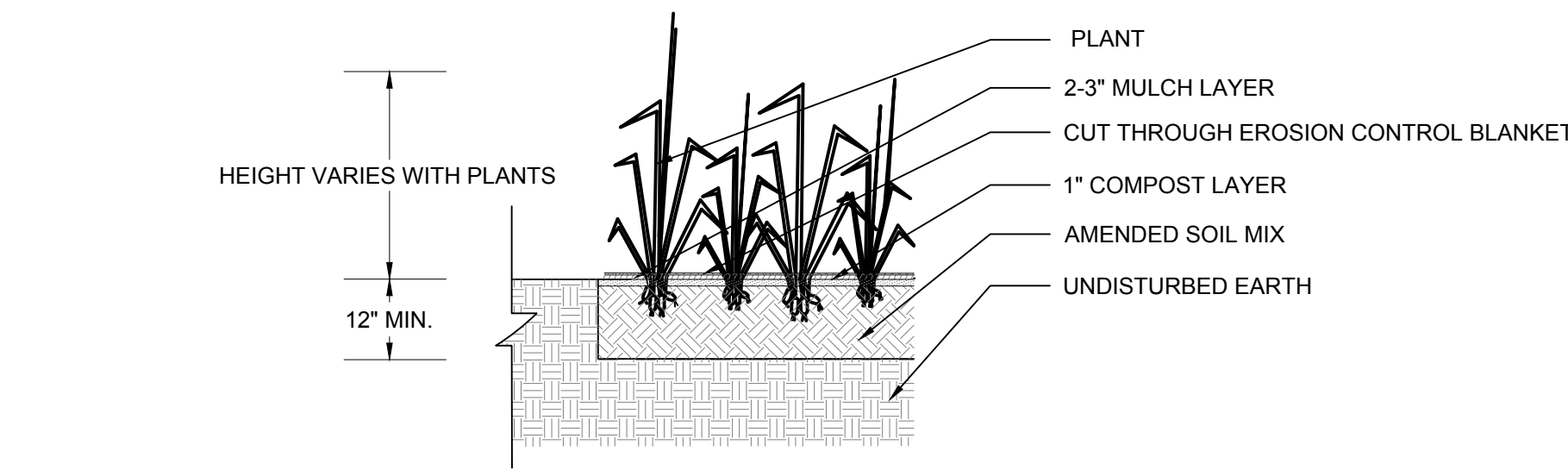
### DECIDUOUS TREE - STAKING SPECIFIED

NOT TO SCALE



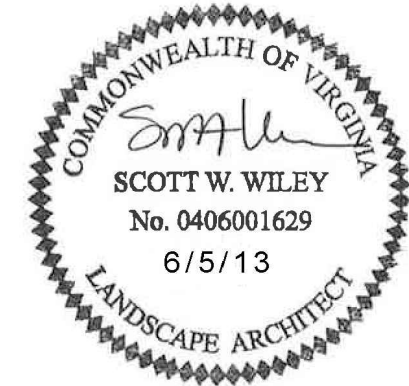
### EVERGREEN TREE- STAKING SPECIFIED

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### MARSH/ WETLAND PLANTING DETAIL

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DATE

DATE  
6/5/2013

DRAWN BY  
J. DAOULAS

DESIGNED BY  
N. BEASLEY

CHECKED BY  
S. WILEY

SCALE  
NTS

# TIMMONS GROUP

## GREENWAY STORMWATER PARK

CITY OF NORFOLK, VA

### LANDSCAPE NOTES AND DETAILS

JOB NO.  
**31926**

SHEET NO.  
**L-102**

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